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ABSTRACT

Intended to train fifth grade students in safe conduct on the school bus, on bicycles, in autos and in the school environment and to develop their perceptual skills as pedestrians amid traffic and under hazardous conditions at school, this curriculum provides directions and materials for approximately 130 safety learning activities. Safety concepts and skills are taught through activities from various curriculum areas, including art, language arts, math, reading, science, and social studies. Research projects for students and lessons focused on sound and hearing are included. Close to half of the curriculum consists of lesson material for developing perceptual skills of pedestrians. While the remaining four safety content areas (school bus, bicycle, auto passenger and school environment pedestrian safety) are more briefly developed, some emphasis is given to auto passenger safety activities. The curriculum materials can be used either selectively or in sequence. Additional features of the curriculum are (1) approximately 45 masters that can be reproduced for classroom use; (2) a cross reference list enabling the teacher to select activities in terms of safety area, integrated subjects, type of activity and/or type of skill taught; (3) a bibliography citing films and filmstrips, teacher preparation books and materials, games and books for children, and curriculum and instructional materials; (4) a list of resource persons, and (5) learning activities and film evaluation forms. (Author/RH)

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SIS

INTERDISCIPLINARY TRAFFIC SAFETY INSTRUCTIONAL SYSTEM

SIS

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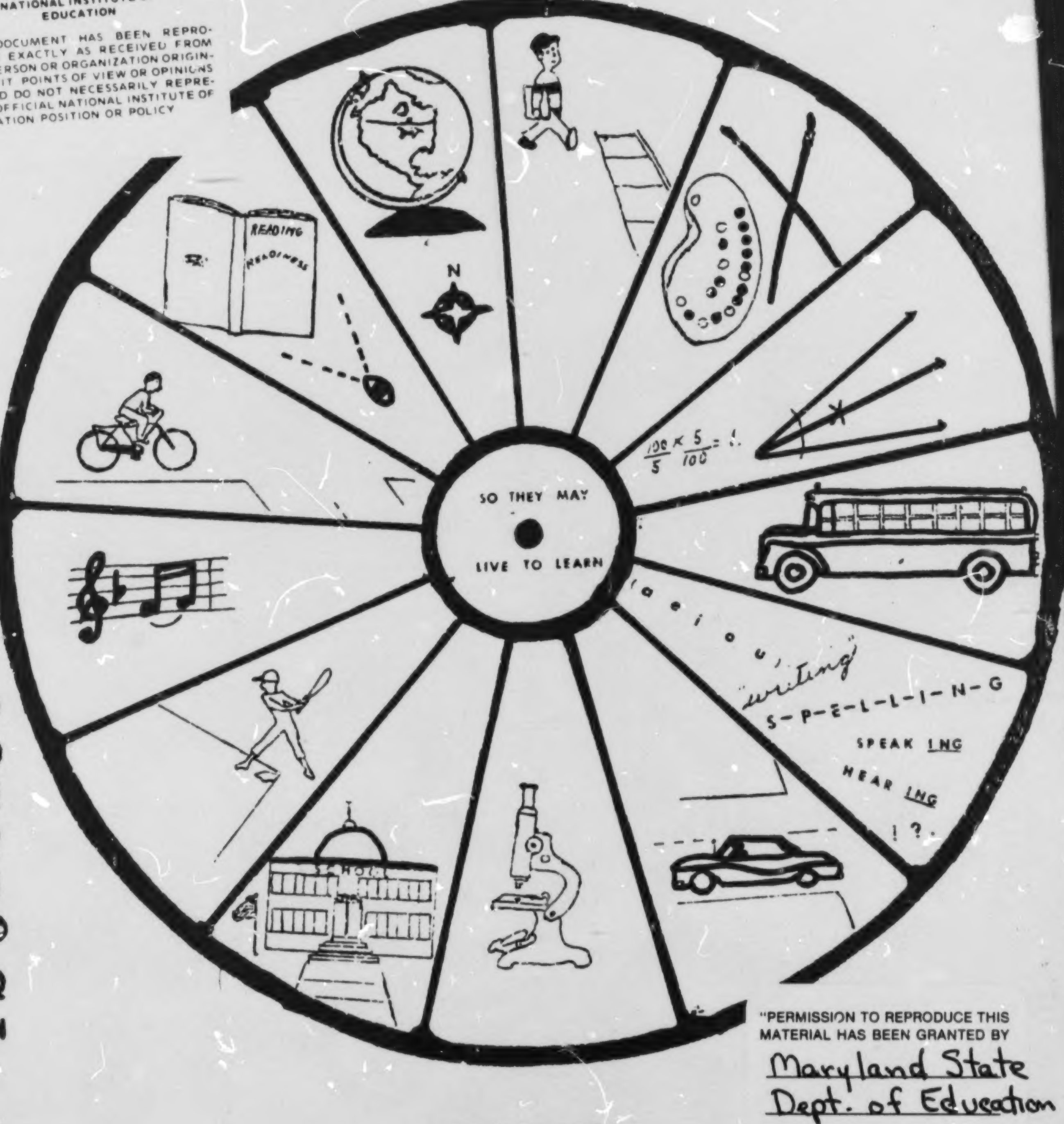
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SPEAK ING
HEAR ING
! ? .
SCHOOL

PS012156

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SERIES V

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PRELUDE

This Safety Education Program encompasses the latest methods of the functional, visual perceptual motor approach to learning. It utilizes the disciplines of education, psychology, optometry and other related fields. It takes into account how children learn the concepts and precepts that they must rely on daily, in order to safely and successfully survive in a complex adult-engineered traffic world.

The survival, safety and success of children depends not so much on knowing a set of rules or regulations about safety, but by a systematic process of identifying, predicting, deciding and executing a specific behavior when confronted with a potentially dangerous situation. The child must first identify the hazard, predict what will occur if certain actions are taken or not taken and then, by calling on stored memory of past experiences, correctly decide on an appropriate action. Finally, he must then execute the best action or reaction to successfully manage the encounter. These encounters occur as children attempt to cross intersections, ride in the family auto or on the school bus. They happen in the home as well as the school environment, in the playground, athletic fields and when riding bicycles and motor equipment. This process of identifying, predicting, deciding and executing is largely triggered by visual inputs in order to cerebrally match data with stored memory traces that have been also visually acquired.

Although we receive information from other sense modalities such as hearing, touch, taste and smell, eighty five per cent of the information we have of the world around us is acquired through vision. Vision monitors and verifies the other sense data. We are aware then of the certitude of Arnold Gessell's statement, "Vision is the dominant sense..in order to know the child, we must know his vision."[1] It was Aristotle who said that there is nothing in the mind that didn't come through the senses. Chardin's adage, "To see or to perish",[2] exemplifies the importance of vision for survival. Survival and seeing are closely linked today as was for our progenitors who successfully slew the saber tooth tiger.

Many individuals have made significant contributions toward understanding the role of vision and its relation to the learning process. Some of the most outstanding people are: G. N. Getman*, A. M. Skeffington, George Crow, Harry Foug, Samuel Renshaw, N. C. Kephart, Darell Boyd Harmon, Robert Kraskin, Florence Sutphin, R. C. Orem, Ray C. Wunderlick, and many others. They all emphasize that vision is learned and has a necessary motor component. The latest interpreters of the writings of Jean Piaget * strongly endorse the thrust of education in this direction. We owe a debt to the professionals today who are concerned about learning and how best to arrange conditions for learning to occur. They dared to take a new tact, and follow convictions based upon sound principles.

It behooves us who have classroom and clinical responsibilities to bring the best methods and techniques to our children. We must also be aware of the models of learning and acquire skills of applying them in the classroom with the individual child.

We, in modern functional optometry, find a great sense of satisfaction in seeing our techniques and principles being utilized, for we know the soundness and effectiveness of this approach to the human organism. As Robert Kraskin so strongly urged, "We can, should and must use the principles and tools of the disciplines, but never use the methods of another profession."[3]

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*For further identification, see page IV.

Modern optometric visual training has long stressed the fact that visual competency is a trainable skill that has ramifications in all human performance. Consequently, an interdisciplinary approach must be taken to insure maximum autonomy on the part of the developing child. Now more and more teachers are realizing the educational benefit to the child that comes from an interdisciplinary approach. Together we all must grow in the knowledge of how children learn to see, so they can survive safely and successfully in our sophisticated world. We call on you to be aware and alert to opportunities available today to make education the joy it must be if true learning is to take place.

Leonard T. Saltysiak

1. Arnold Gesell, Vision - *Its Development in Infant and Child* (New York, N.Y.: Harper and Brothers, 1949.)

2. Pierre Tielhard de Chardin, *Phenomenon of Man* (New York, N.Y.: Harper Textbooks, 1959.)

3. Robert A. Kraskin, *You Can Improve Your Vision* (Garden City, New York: Doubleday & Company, Inc., 1968.)

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INTRODUCTION

HOW TO USE THIS PROGRAM

The overall objective of this interdisciplinary instructional system for traffic safety is to provide an effective tool for training the young in the knowledge and skills needed to efficiently cope with the traffic environment. This program presents safety awareness and responsibility as a necessary "way of life" and not as a restrictive prescribed list of "do's" and "don'ts".

Within each of the five safety areas, materials have been developed to provide sequential learning. An "a la carte" approach to selecting those activities which are specifically relevant to your students is encouraged. However, this publication is also designed to be used in a progressional sequence.

The following are specific characteristics of this instructional program that will assist you in its use:

1. A table of contents based on the concepts for each major safety area is located at the front of each grade level publication. This allows the teacher to choose those safety areas by content based upon the assessed needs of the student.

2. A cross reference is provided in the back of each grade level publication to allow selection of safety content by safety area, integrated subjects, type of activity and type of skill. Within the safety areas you may select lessons in a particular subject area or choose specific skills that are needed for your students, the lessons are further denoted as teacher directed, group or individual activities, see pages 172-182.

3. Special emphasis has been placed on the use of masters for reproduction. Each master has the directions for use on the back of it. Every master is designated by a title, letter and page number. The masters are listed in the cross reference under "masters for reproduction", as well as under each integrated subject.

4. A bibliography of films, teacher preparation, books and manuals, children's books and other related instructional material is provided. This listing contains most of the current books and materials that are related to this program! Most of these are available on a short loan basis from the Maryland State Department of Education, Safety and Transportation Phone: 796-8300, ext. 287.

5. An evaluation form is included for you to submit at any time you deem it appropriate, but especially at the conclusion of each school semester. Your evaluation is essential in order to adequately assess the effectiveness of this program for both the teacher and the student. These evaluations will be used as a basis for future revisions.

SAFETY INSTRUCTIONAL SYSTEM EVALUATION

PLEASE BE FRANK AND CONSTRUCTIVE IN COMPLETING THIS EVALUATION. RETURN A COPY OF THIS FORM AT THE END OF EACH SEMESTER (OR MORE OFTEN IF YOU WISH) TO:

MARYLAND STATE DEPARTMENT OF EDUCATION
SAFETY AND TRANSPORTATION
P. O. BOX 8717, FRIENDSHIP INTERNATIONAL AIRPORT
BALTIMORE, MARYLAND 21240

GRADE LEVEL K 1 2 3 4 5 6
(CHECK ONE)

	GOOD	ACCEPTABLE	NEEDS IMPROVEMENT
1. CLEAR AND CONCISE PRESENTATION OF CONCEPTS AND CONTENT FOR THE TEACHER.			
2. CONCEPTS AND ACTIVITIES SUITABLE FOR GRADE LEVEL COMPETENCIES.			
3. FORMAT EASILY FOLLOWED.			
4. ACTIVITIES COMMENSURATE WITH OBJECTIVES.			
5. ACTIVITIES PRACTICAL FOR APPLICATION OF CONTENT.			
6. VISUALS ADEQUATELY COORDINATED WITH LESSONS.			
7. TECHNICAL MATERIAL APPROPRIATE TO STUDENT COMPREHENSION LEVEL AND TEACHER UNDERSTANDING.			
8. INTERDISCIPLINE APPROACH TO ACTIVITIES REALISTIC AND EFFECTIVE.			
9. CROSS REFERENCE SYSTEM EFFECTIVE AND HELPFUL.			
10. BIBLIOGRAPHY AND RESOURCE REFERENCE.			

11. ARE MORE ACTIVITIES NEEDED? ___YES ___NO. IF YES, IN WHAT AREA? ______________

____

12. PLEASE LIST ANY ACTIVITIES YOU FEEL SHOULD BE EXCLUDED. ______________

____

13. HOW DO YOU FEEL THIS PUBLICATION IS BEST USED? ___A LA CARTE THROUGHOUT ___AS SUPPORT MATERIAL FOR OTHER SUBJECT AREAS ___AS A SEPARATE COURSE OF STUDY WITHIN THE SCHOOL WEEK ___AS OCCASION PRESENTS ITSELF

14. HOW DO YOU PLAN TO USE THIS PUBLICATION IN THE FUTURE? ___DAILY ___MONTHLY ___ONLY OCCASIONALLY ___NOT AT ALL ___OTHER (SPECIFICY) ______________

____

PLEASE INDICATE YOUR SUGGESTIONS ON THE REVERSE SIDE OF THIS PAPER IN ANY AREAS WHICH YOU MARKED AS NEEDING IMPROVEMENT. ANY OTHER CRITICISMS OR COMMENTS ARE ALSO APPRECIATED.

SAFETY FILM CRITIQUE FORM
(SEE DIRECTIONS ON THE BACK)

CHECK ONE:

☐ BOY

☐ GIRL

NAME: ____________________

CHECK ONE:

	YES	NO	UNDECIDED
1. DID YOU LIKE THIS FILM?	☐	☐	☐
2. DO YOU THINK THIS FILM WAS EFFECTIVE?	☐	☐	☐
3. DO YOU FEEL THE SITUATIONS PRESENTED IN THIS FILM WERE REALISTIC?	☐	☐	☐

4. IF ANSWER TO #3 IS NO, WHICH SITUATIONS WERE UNREALISTIC AND WHY?

____

____

____

	YES	NO	UNDECIDED
5. DID THIS FILM SUPPLY YOU WITH NEW INFORMATION?	☐	☐	☐
6. COULD YOU IDENTIFY ANYONE IN THIS FILM AS REPRESENTATIVE OF PEOPLE YOU KNOW?	☐	☐	☐
7. WOULD YOU LIKE TO SEE OTHER SUBJECTS USE THIS FILM TECHNIQUE FOR INSTRUCTION?	☐	☐	☐
8. DO YOU THINK VIEWING THIS FILM WILL CAUSE YOU TO CHANGE SOME OF YOUR BEHAVIOR?	☐	☐	☐

9. IF ANSWER TO #8 IS YES, IN WHAT WAY WILL YOU CHANGE YOUR BEHAVIOR?

____

____

10. IF ANSWER TO #8 IS NO, WHY WILL YOU NOT CHANGE YOUR BEHAVIOR?

____

____

IF YOU WISH, PLACE ANY ADDITIONAL COMMENTS ON THE BACK OF THIS SHEET.

SAFETY FILM CRITIQUE FORM

DIRECTIONS

THE FILM CRITIQUE IS DESIGNED TO BE USED WITH THE SAFETY FILMS LISTED IN THE BIBLIOGRAPHY. AFTER THE CRITIQUE HAS BEEN COMPLETED, THE STUDENTS CAN TABULATE THE RESULTS AND REPORT THEM TO THE CLASS. VARIATION: HAVE THE CHILDREN SUGGEST ACCIVITIES AND/OR REPORTS THAT CAN BE MADE FROM INFORMATION GAINED FROM THE CRITIQUE.

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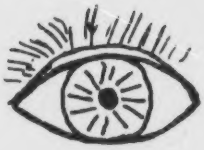
PEDESTRIAN PERCEPTUAL SAFETY ACTIVITIES



UNIT OBJECTIVES:

Through developmental perceptual training activities, the student will be able to acquire the basic perceptual skills necessary to the pedestrian task.

A totally coordinated body is necessary to function efficiently in the complex traffic world.

All senses must be developed and trained to cope with the traffic environment to insure maximum efficiency.

OBJECTIVE: Having experienced several activities dealing with sound, the student will be able to list five reasons why it is important to distinguish differences in certain sounds.

CONCEPTS TO BE DEVELOPED:

1. Some materials vibrate better than others.
2. Sound waves have various characteristics such as pitch and volume.
3. Vibrations become sound only when they enter the ear.
4. Sound waves travel in all directions if not blocked.
5. Sound waves can be guided in a single direction.
6. Sound is really vibration.
7. Sounds do not mean the same thing to all people.
8. Animals as well as people communicate by sound.

TEACHER INFORMATION

LISTENING is essential for survival in the traffic environment. There is a distinction between what we hear and levels of listening.

LEVELS OF LISTENING

Since listening operates at various levels, teachers and pupils both must be aware of the different ways of listening. In fact, they may deliberately choose at a given time to function at a particular level. For example, if the child is asked by the teacher to follow directions carefully for making the Valentine box, a high level of listening for exact details will be in order. But if a television speech which a junior high class was asked to monitor turns out to be a boring affair, the students may listen only enough to get the main idea of the talk. Many experts suggest different amounts of involvement in listening. No one level is necessarily better than any other, but the following list of levels ranges from inexact to detailed, from aimless to purposeful, from passive to creative: This list may serve as a guide for using listening activities.

Hearing

1. Hearing sounds or words but not reacting beyond bare recognition (e.g., knowing that Joey is speaking).

2. Intermittent listening - turning the speaker on and off in aimless fashion, as the mind wanders (e.g., hearing one fact about sled-dogs but none of the rest of the social studies report on Eskimos).

3. Half-listening - following the train of discussion but only closely enough to seize the first opportunity to have one's own say (e.g., not really hearing what your classmate did over the weekend but waiting to tell how you caught a fish during the conversation period).

Listening

4. Listening passively with little or no observable response. (The child who constantly "glues" his eyes on his teacher but offers no reactions in words or facial expression may or may not be responding).

5. Narrow listening in which the main significance or emphasis is lost as the listener selects details which may be relatively unimportant but which are familiar or agreeable to him. (A junior high school pupil agrees heartily with two points made by a panel speaker but disregards other contributions on all sides of a question.)

Auding

6. Listening and forming associations with related items from one's own experience. (A second grader notes the relationship between the words "hound" and "found"; a fifth grader who has listened to the committee report on the gold rush of '49 tells of his visit to a ghost mining town in the West, relating his account to items in the report.)

7. Listening closely enough to the organization of a talk or report to get main ideas and supporting details, to follow directions, etc. (An eighth-grade pupil notes that the main topic of the report is the causes of the American Revolution and lists four such causes.)

8. Listening critically. (A sixth grader gives evidence of critical listening when he asks for more data on the statement made by a classmate that most South American countries have democratic governments.)

9. Appreciative and creative listening, with genuine mental and emotional participation. (A pupil responds to the humor of the Benet poem "John James Audubon," suggests several other poems that the group might read orally from *The Book of Americans* by the Benets, and tells why these poems are exciting to him.)

These types of hearing, listening, and auding have been listed on successive levels, but obviously there is much overlapping among them. In general, pupils must have considerable experience and mental maturity before they can react as in levels seven, eight, and nine; but such responses are not limited to older children any more than aimless listening is typical of younger children. In every case the context of the material heard, and the concepts and purposes involved, rather than the mere age of the pupils, will determine whether the reaction is passive hearing or accurate, creative auding. The teacher and other pupils have much to do with the level or quality of any one child's listening. With guidance a child's listening experience may become a genuine "meeting of minds." His auding may be: selective, purposeful, accurate, critical creative.

FROM: *Listening Aids Through the Grades*
David H. & Elizabeth F. Russell, Teachers
College Press, Teachers College, Columbia University

1. VIBRATION RESEARCH - The characteristics of vibration are:

   a. Distance
   b. Volume
   c. Duration
   d. Pitch
   e. Direction of Sound
   f. Speed of Sound

   Have students research the above topics using the suggested activities below. However, they may include any activities they find in their research to prove that A-F are indeed characteristics of vibration. This activity can lead into a project on noise pollution and especially its effect on the traffic environment.

   Make a small megaphone of paper. Let a student stand at a distance and talk to the group with and without the megaphone. Try a soft voice and a loud one. Point the megaphone in different directions.

   Tap a tuning fork and hold the base to various materials to test for resonance.

   Discuss the need of a sounding board in a violin or piano.

   Experiment in producing the different vibrations that produce the human voice and instrumental music.

   Place hand to throat and feel vibration of vocal cords.

2. SOUND CHART - Materials: Make a large chart of sounds with the children helping. Sounds may be rustles, squeaks, bangs, roars, etc. Prepare a box of different objects and have some old magazines available.

   Discussion: On the board you see a chart of sounds. From the box or these magazines, find an object or a picture of an object that comes closest to making each sound. You may keep the object or the picture. Put the picture in your notebook with the name of the sound. We will talk about these sounds later.

   When the children have had time to work on this alone, talk over what object or picture makes each sound. They won't agree. Talk over why they don't agree on what makes a sound. As different children make sounds, notice the difference. Do they all agree on what a soft or a loud sound is? Does this help explain why we all like different kinds of music?

3. DETECTING QUIET SOUNDS - A working model of a stethoscope can be made with a piece of rubber tubing about three feet long with a funnel fitted into one end of it. The funnel end is placed close to a quiet sound and the other end is Determine the effectiveness of this sound detector by listening at the same distance without the device. Ask the children to suggest a number of uses for their sound detector. These may include listening to:

   - a radio played so softly that it cannot be heard under ordinary conditions.

   - a ticking watch.

   - someone whispering into the funnel.

   - an insect in a box.

   - an electric refrigerator.

   - someone talking softly (place funnel against throat.)

   Children should be able to note: The sound detector works because the funnel collects sound from a wide area and conducts it through a tube to the ear. Thus, the volume of the sound, instead of being scattered in all directions, is gathered and brought to the ear.

4. HOW CAN WE MEASURE SOUND? Children research what is meant by the decibel scale .

5. ANIMAL AUDITORY RESEARCH - Animals make sounds and hear sounds just as people do. They can communicate with each other. A crow will warn other crows of danger by calling in a particular way. A beaver will send his warning by slapping his tail against the water. Some people think their pets communicate with them. Do your pets have a particular way of telling you things? (Allow children to tell of sounds that their pets make.) Dogs bark to indicate a stranger is coming. Cats purr when they are contented, etc.

6. MASTER FOR REPRODUCTION

   A - Animal Auditory Research Project

ANIMAL RESEARCH PROJECT

Animal	How it makes a sound.	How it hears.	Why it is important that it hears or makes sounds.
Giraffe	No sound	Ears	Protection. Can't make sound but can hear and run fast.

18

MASTER FOR REPRODUCTION A

ANIMAL AUDITORY RESEARCH PROJECT

DIRECTIONS

On this chart are listed many animals. Look up the animal and find out how it makes sound, if it does. Find out how it hears, if it does. Write on the chart I have given you what you find out. Be sure to put the information under the correct heading. Under the heading of ANIMALS, list animals such as the giraffe, lynx, cricket, eagle, toad, etc. Have reference books and articles on animals, birds, insects, and fish available for the children to use.

7. RECORDING SOUNDS

Sounds can be identified one at a time, i.e., the horn of a car. Or in multiples, i.e., several horns in a traffic jam. The horn is usually an easily recognized sound. Sounds that are heard one at a time are easier to recognize than those that are heard along with other sounds. However, one should be aware of several sounds in isolation and be able to identify them for one of the sounds may indicate a danger that an individual should be aware of in order to defend and/or protect himself. Have the children record several single sounds, i.e., slamming doors - house and car - and identify each one. Have the children take a portable tape recorder to different places where multiple sounds can be heard. Examples: (1) a kindergarten room during free play, (2) a busy intersection, (3) a parking lot, (4) a gymnasium where children are involved in an activity, and (5) the school lunchroom or any others that the children suggest. Have students observe and make note of various items they see when they tape. Have them play the tapes and have students guess the sounds they hear and the object that made the sound, i.e., horn -- car. After the sounds have been named, list them. Have students indicate whether or not the sound was a warning sound. After this has been completed, have them discuss how or why the sounds would be important to them.

VARIATION: Record sounds one at a time as individual class members or in small groups. VARIATION: When working with traffic sounds, have the students relate how the sounds can affect them as a pedestrian, bicyclist or a car passenger.

8. CAR SOUNDS

A vehicle can make the following sounds:

Screeching tires
An engine humming as it is being parked
An engine roaring while it is in movement
Swishing of windshield wipers
Slamming of one or more doors simultaneously or separately.

Have students tape record sounds of a car that has the motor going while the gear is in "park." Then have them select an area where one car coming at a time can be recorded. After this has been completed, have the children listen to the tape and compare the sounds. Ask them why it would be important to know these sounds and why it would be helpful to them as pedestrians to know these sounds.

For example, a child should be able to recognize the difference between sounds of cars. A moving car coming from a distance becomes louder as it gets closer. This distinction is essential for survival in the traffic environment. As a pedestrian, one is able to listen for sounds as an additional aid in crossing the street. The student lists the sounds heard from the recording.

9. WHAT WAS THE SOUND?

Give the children a copy of a lengthy poem or short story to read. As they are reading the poem, play prerecorded commercials from television and/or radio (approximately eight). After the children have completed reading the poem, have them name the commercials they heard. Ask them how this would be of importance in a pedestrian situation, i.e., two people talking to each other while standing at a busy intersection as traffic goes by. Elicit from children that it is difficult to hear and recognize sounds when their attention is on two things at the same time. Therefore, when crossing the street, it is important to listen to traffic sounds and this takes priority over listening to a friend.

10. SOUND ENGINEER

In selecting careers, the job of the sound engineer has become very popular in television, radio, and the sound industry. A technical background is necessary for most sound engineers. Interested students may research the background of a sound engineer, his training, what he does on the job, etc. Have them relate their findings to the class and discuss.

VISION

INTRODUCTION

Vision is a complex process involving more than sharpness of image. Efficiency and meaning are reduced if the eyes cannot follow what they are supposed to look at, if they cannot work in harmony as a team to focus and center on what they should be directed on, or if the eyes need other senses such as finger touch, head movements, or vocalization to help the elements in the visual process function better. Visual abilities are all motor skills, and as such are strongly influenced by the motor ability of the body in general.

Visual perception activities include eye-movement and focus activities, form perception activities, visual memory activities, visual comparison activities, visual projection activities, and eye-hand coordination activities. The emphasis is on the functional rather than the medical aspects of vision.

HOW WE SEE

Teacher Information

Human beings have two complex eyes. They are set in bony cups called sockets that are in the front of the head. The eyeballs are protected by eyelids and lashes.

Have each student look at the eyes of a friend. Have them locate the colored part of the eye. This part is called the iris. Have them locate the dark spot in the eye. This is called the pupil. The clear coloring (which the students may not be able to see) is called the cornea.

Inside the eye is the lens. It is held in place by little muscles and can change its shape so you can see things close up and far away. The lining of the eyeball is the retina. The part of the retina that is directly behind the lens is called the fovea. It contains a special kind of cell called a cone. Cones help you to see bright colors. Outside the fovea the retina contains not only cones but also another type of cell called a rod.

The optic nerve connects the eyeball to the brain. At the spot where the optic nerve joins the eyeball there are no rods or cones. This is called the blind spot because we cannot see anything from it.

We see things in much the same way that a camera makes pictures on film. Light, which travels in straight lines called rays, is reflected or bounced off the object we are looking at. The reflected ray travels to our eyes through the cornea where it is bent slightly by the curved surface, so that it passes through the pupil. The lens, which is curved, too, bends the light some more until it is focused and forms the image. The image appears upside down on the retina. The optic nerve carries the image upside down on the retina. The optic nerve carries the image, in the form of little electric currents or impulses to the brain where the currents are interpreted and we see - right side up, thanks to our brain.

TRAINING VISION

Teacher Information

How often we let our eyes do only half the job! How often they see for themselves but fail to report their message to our arms and legs.

Eyes have been trained to see. We depend on them for 80% of our education for the first twelve years of life, reports the American Optometric Association. We also depend on them for safety.

Children must be shown how to make their eyes work for safety. Most of your pupils probably know that they're supposed to look left and right before crossing streets. But do they know that looking once is not enough? Tell them that they should look and keep looking all around them until they are out of the danger area.

Looking again is not the only eye skill that you should teach your pupils.

The most important vision skill needed by a football player, says the American Optometric Association, is the ability to get the whole picture at a glance. Not only must the player be aware of what is occurring in front of him, but he must also develop his side vision.

Think how limited we would be without this side vision! Being able to perceive only what is directly ahead robs us of the total picture. Like a football player surveying the whole play, the child must survey the whole situation when crossing the street. If his eyes are looking only in one direction -- straight ahead to grab a ball that has rolled into the street -- he may be headed for an accident.

Teach your pupils to use this side vision especially when a quick look is necessary. Train them to look at and then really see what is up, down, right and left. Remind them never to depend entirely on any of their other senses to lead them to safety. Hearing can help, but it can never tell the pedestrian enough about dangers threatening him while crossing the street.

Only the eyes can judge the speed of an oncoming car. Only the eyes can sense the meaning of a red light or a sign that says walk. Only they can move quickly enough to scan the total picture and alert the other parts of the body to use caution.

The school aged pedestrian has many rules to remember: "Walk on the left;" "Don't dart out from between parked cars;" "Cross only at the corner;""Wait for the green light." But if the youngster forgets almost everything else, make sure he remembers that his eyes are his best traffic signals. He should obey them!

STRESS THE FOLLOWING SAFETY RULES

TO YOUR

PUPILS

1. Wear clothing that does not impair vision or cover the eyes.

2. Never cross the street without looking in all directions. Keeping eyes straight ahead may lead you straight to the hospital!

3. Don't depend on the car to stop even though the sign says walk.

4. Allow more time to cross streets in icy weather. Remember -------approaching cars will have more trouble stopping just as you have more trouble walking.

5. Make eyes do double duty in winter when ears are covered.

BINOCULAR VISION-DEPTH PERCEPTION

Binocular vision involves the use of both eyes, but we see only one picture. When we look at something, each eye sees it a slightly different way. When the brain receives the impulses from the optic nerve, it interprets and combines the two sets of impulses from the optic nerve into a single picture. Using two eyes to see is called binocular vision. It helps us judge how far away things are.

DEPTH PERCEPTION

Depth perception is the ability to analyze the third-dimensional aspect of your picture. This requires a high degree of binocularity in your eyesight---that is, your two eyes must work together as well, each providing the brain with a picture very similar to the others so that the brain can superimpose the two pictures and interpret the depth.

Only in this way can you tell how far away things are and how far away from each other the objects in your picture are.

MONOCULAR VISION

When a person uses only one eye to see, this is called monocular vision. Some people appear to be using both eyes in seeing when indeed they may be suppressing vision in one eye and using only one eye to obtain vision formation for the brain. These people usually have poor depth perception. Early training and/or glasses can usually correct this disorder.

Binocularity Experiment

To illustrate binocularity, have the student hold one end of a string at the end of his nose and put the other at arm's length over the thumb. Have him focus his eyes on the extended end of the string where the string is grasped. Ask: How many strings do you see? (The student should see two strings forming a "v" toward the extended string end.)

NOTE: Some children may have a difficult time with this activity. This may be due to the lack of practice or may be due to a monocular vision pattern.

Now have him close one eye. How many strings do you see? At which side? (They should all see one.)

Now close the other eye and open the one that was originally closed. How many strings do you see? Which side?

Now switch eyes in a winking manner as rapidly as possible. What happens? (Students should experience a jumping appearance of the string in relation to the corresponding open eye.)

With both eyes open, tilt the head to one side. What happens?

Tilt the head to the other side. What happens to the "v" formation?

With the string extended as initially illustrated, have another student move a pencil end slowly toward the subject's nose along the string and have the subject follow the pencil noting the movement of the "v" formation. The "v" will move in proportion to the focal point of the pencil tip. The student moving the pencil will note a "turning in" (consequence of the subject's eyes --this is a normal process and illustrates the adaptability of the eyes for binocularity.)

QUESTIONS FOR SUMMARY:

1. How many actual strings were there?
2. How many v's appeared?
3. What was their formation?
4. Why did the string seem to jerk when alternating eyes were used?
5. How do you account for the tilting affect of the "v" formation when the head is tilted to each side?

ADDITIONAL QUESTIONS TO RESEARCH OR DISCUSS:

1. Do animals have binocular vision?
2. How does a bird see?
3. How does a dog see?
4. How does an insect see?
5. How does a monkey see?

BINOCULAR VISION AND DEPTH PERCEPTION ACTIVITY

Put a paper clip or small safety pin on a table. Ask a student to use a broom handle or a long stick as a pointer. Cover one eye of the chosen student. Ask him/her to walk toward the table. When he thinks he has reached the right distance, have him try to knock the paper clip or pin from the table with the broom handle. Keep trying until he succeeds. Then try it with both eyes open. Ask the students which is easier, one eye or both? Which is easier and why? (Using both eyes together is easier because both your eyes are working together and your brain judges distance by knowing how much your eyes are pointing together.) Now you know why binocular vision is essential to tell you how far away a car is before you cross the street. What are some things that might keep you from using both eyes?

DOMINANT EYE PHENOMONA

Like right and left handedness, one eye is usually dominant over the other.

Activity: Have children roll an 8" x 11" piece of paper into a cylinder and holding the cylinder about eight inches from the eye, sight an object across the room. The eye that is first and easier to use is usually dominant.

PERIPHERAL VISION

The eyes work together to provide a panorama of extreme width, usually in the neighborhood of 180 degrees, so that the normally sighted person can perceive objects, especially if they're in motion, that are straight to the sides. Specifically, this is the total picture a person can see at any given time without moving the eyes. The side, or peripheral area is included as well as the dead-ahead, pin point object the eyes might be aimed at.

Peripheral Vision Activity

Divide the class into two equal sections. Working in pairs, have each pair of students do the following activity. Stand one student in a stationary spot. Have the partner stand directly to the side of the first student. The first student looks straight ahead as his partner begins to walk in a circle around him. The first student tells his partner to stop as soon as he can see his partner.

Explain to the class that this is the outer limit of their vision, or their peripheral vision. Although it is possible to see a little way to the side without turning your head, this exercise should show how important it is for you to move both your eyes and your head when you look both ways and all around before you cross the street.

How You See Color

Have one student look straight ahead. Have another student hold a sheet of colored paper at arm's length at the side of the first student's body. Ask the student if he can see what color the paper is? Can he see the shape of the paper?

Have the second student slowly swing the paper forward until it is directly in front of the first student's eyes. Ask if he can see the color of the paper now? Ask if he can explain why the color can be seen when the paper is in front of him, but cannot be seen when the paper is held directly to his side? (When the paper was at the side, the student was seeing it with the rods, which can distinguish light and dark, but are insensitive to color. When the paper was in front of the student, he was seeing it with the color sensitive cones.)

Have each student hold a hand at arm's length out to their side so that they can see the palm of their hand but not their fingers while looking straight ahead. Now ask the students to wiggle their fingers. Ask the students to describe what they see.

Study Color Activity

Why do we say to wear white or a light color at night and in bad weather? Why won't red do as well? To find out, have the students paste squares of colored paper together and observe which colors are easiest to see against various backgrounds. Discuss the findings. (The class will discover that colors opposite each other on the color wheel are most outstanding.)

Blind Spot Test

Have each student place two fairly large dots, about five inches apart, on a piece of paper. Have the students hold the paper at arms length straight in front of themselves. Instruct the students to close their left eye and look steadily at the left-hand dot. Have them move the paper slowly toward their faces. (The right hand dot will disappear when its image falls on the blind spot. Even the image of a fat man who is standing six feet away from the car can disappear in a motorist's blind spot. That's why you should wear clothing that contrasts with the background.)

Reflection

What makes yellow brighter than green? The lighter colors reflect more light than do the darker colors. Reflection is the bouncing back of a ray of light from the surface. White reflects light best. Black doesn't reflect any light; it collects it. A medium gray reflects about 35% of the light which strikes it.

Reflection Activity

Darken the room and shine a flashlight on several sheets of colored paper, including white and black. Which sheet of paper was the brightest? Which was easiest to see? What implications does this have for the color of clothing we choose to wear in the daytime or after dark if we will be walking along a roadway? (If you wear dark clothing and the background is dark, less than 5 per cent of the light that falls on you from a car's headlights is reflected back into the driver's eyes. You would be as visible as that black piece of paper in the darkened room.)

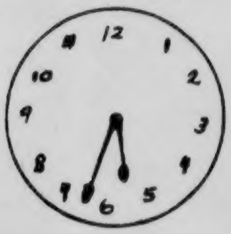
Twilight and Vision

At twilight or dusk, the world seems to lose its brilliant color and everything turns gray. The first color that seems to fade is red. Green stays the longest. Actually the colors are still there; it is just that your vision is being handled by the rods which are distributed over the whole retina and are used to sense black and white and dim light.

More pedestrian accidents happen during the twilight hours than at any other time. The color contrast needed as an aid for sharp vision fades and it is difficult to judge distances.

The concept of dusk itself - - the twilight time when it is not really dark and not really light -- is difficult for youngsters to grasp. Technically, dusk sets in shortly after sunset and lasts until it is pitch dark. This period can last up to two hours in spring and summer.

Time of Sunset Chart



TIME OF SUNSET

Monday________________
Tuesday________________
Wednesday______________
Thursday_______________
Friday_________________

The "Time of Sunset" clock can be made of construction paper with the numbers painted or pasted on the face. The hands can be made of poster board and should be movable, so use a double-pronged fastener. Pupils should check the newspaper and set the time of sunset on the clock each day in addition to keeping a weekly or monthly chart. A discussion of the length of the period referred to as dusk should take place, noting the varying length of time involved during different seasons of the year.

When Your Eyes Meet a Change of Light

You can observe what happens when your eyes meet a change of light. Select two students. Have one child face a bright light for a few seconds. What happens to the pupils of his eyes? (They become very small.) Now have him cover one eye with his right hand for about 30 seconds. Have him remove his hand. What has happened to the size of his pupils now? (They have enlarged in size.) But watch how they quickly get smaller in the brighter light.

The iris of the eye closes up in bright light to prevent too much light from entering the eye. When it is dark, the iris opens up again to let in more light. But it takes a little time for this to happen each time, and that is why you are temporarily blinded by too much light or too much darkness, especially if this change is sudden.

*Ideas for the vision activities were derived from School Safety Magazines.

OBJECTIVES:

1. The students will be able to accurately discriminate and identify all the shapes within given drawings.

2. Given the following safety signs and corresponding activities, the students will be able to visually identify and verbally name 80% of the given signs.

1. VISION TASKS

1. Have your pupils hold notebooks up to the side of their faces, blocking their side vision. Ask them to describe what they see. Then ask the same question when the children are not blocking their side vision. Perhaps now they can tell you why horses used to be fitted with blinders.

2. Divide your class into two teams. Blindfold one of the teams. Have the team without the blindfolds find things in the classroom that they would like to have the blindfolded team tell about. This will give the youngsters an idea of how to identify a book, but can they tell the opposing team what the title of the book is?

2. MAS[illegible]RS FOR REPRODUCTION

B-Moving Eyes-playlet
C-Shape Recognition
D-Selecting Differences
E - Examples of Signs

3. DESIGN YOUR OWN SAFETY SIGNS

Have students try their hand at designing some original safety signs. They may design a sign based on one of the topics in the list below or they might want to make up a sign for some other safety subject that they think of. The following are safety rules that apply to the inside of your school, the playground, at home, in your parents' car:

DESIGN YOUR OWN SAFETY SIGNS-CONTINUED

Cross street at the crosswalk.

Running in the halls is dangerous.

Look both ways before crossing a street.

No roughhousing on the playground.

Stay in your seat on the bus.

Don't bother the bus driver.

Books left lying on the floor or stairs are tripping hazards.

In case of fire, follow teacher's instructions.

Bicyclists should ride single file.

It's dangerous to stand up in a swing.

Always buckle your safety belt in a car.

Running up or down stairs could result in a fall.

A gun is not a plaything.

Never play with matches.

Keep sharp or pointed objects away from eyes.

Don't block out your vision with a Halloween mask.

34

MOVING EYES

(A short play about cars and vision)

NARRATOR:

MEET Bruce the Killer Car!

He hates people.

Especially young people.

Very especially fourth, fifth and sixth graders.

The staff of SCHOOL SAFETY MAGAZINE received word that this car is actually alive. So a correspondent was sent to the garage home of Bruce the Killer Car. (Its location must remain a secret.) This correspondent went on a demonstration ride with Bruce, or should it be in Bruce . . . or both? Anyway, what he saw and heard shocked and frightened him.

What follows is a play-by-play description of this ride as taken from a tape recording.

CORRESPONDENT: "Now I'm opening Bruce's door, climbing in and sitting down in the driver's seat. I won't do any steering though. Bruce will handle all of that and explain just what he's doing as we go along.

"We're picking up speed. Now, we're finally settling down at our cruising speed of about 10 miles per hour above the speed limit."

"Where are we headed, Bruce?"

BRUCE: "Near Franklin School. A lot of the kids who walk to school will be in that area now."

CORRESPONDENT: "Bruce, you mean you're really going to try to hit those children?"

BRUCE: "How do you think I got my reputation? Look up there in the next block. See those bicyclists crossing the street? I'm going to speed up now. See how they're driving in single file, each one looking at the bike in front of him? They'll never see me until I'm right up on them. Hold on! Here we go!"

B-continued

CORRESPONDENT: "We're rapidly approaching the bicyclists now. I can't look . . . wait a minute. One of the boys is turning and looking in our direction. He must have said something to the others because they're all pedaling faster -- right out of our path."

BRUCE: "Rotten luck. That kid would have to look. Oh, Oh, we've got another chance. Look at those kids waiting at the bus stop. They're horsing around and jostling one another out into the street. Nobody's watching traffic. I'm stepping on the gas. Hold on!"

CORRESPONDENT: "Here we go again. Those youngsters just aren't watching. Their attention is on a dog that's playing with one of the boys. Oh, this is terrible. The dog's smarter than the kids. He's seen Bruce and he's barking. Now the kids see us. Thank goodness. They're jumping back to safety. Bruce is going to be disappointed again. Going to give up, Bruce?"

BRUCE: "Nope. Just a couple of blocks down this way is another good spot. I've got a trick or two up my sleeve . . . er, fender, that is. Notice how I'm just creeping along?"

CORRESPONDENT: "Yes, why is that?"

BRUCE: "Well, if kids happen to notice me coming down the street they'll think I'm coming so slow that they have plenty of time to get across the street. That's when I step on the gas. If the kids don't look my way again I'm right on them before they realize it. Nuts! That little girl is looking this way, again. She sees I've speeded up. She's running out of the way. Foiled again!"

CORRESPONDENT: "Going to give up?"

BRUCE: "Maybe. Don't see much else around here. There's a boy starting to cross the street, but he's really staring at us. We can't get him. Wait a minute. Look at that. He wasn't paying any attention to those other boys playing catch on the sidewalk. He just got hit in the back with a wild throw. He's not so smart after all."

CORRESPONDENT: "Really Bruce, let's call it a day."

BRUCE: "Okay, we'll head back to the garage now and you can go back in to your office. I've got to start planning my after-school strategy."

CORRESPONDENT: "This is your School Safety Correspondent signing off. Over and out."

Later in the offices of SCHOOL SAFETY MAGAZINE the correspondent reported his findings to the staff.

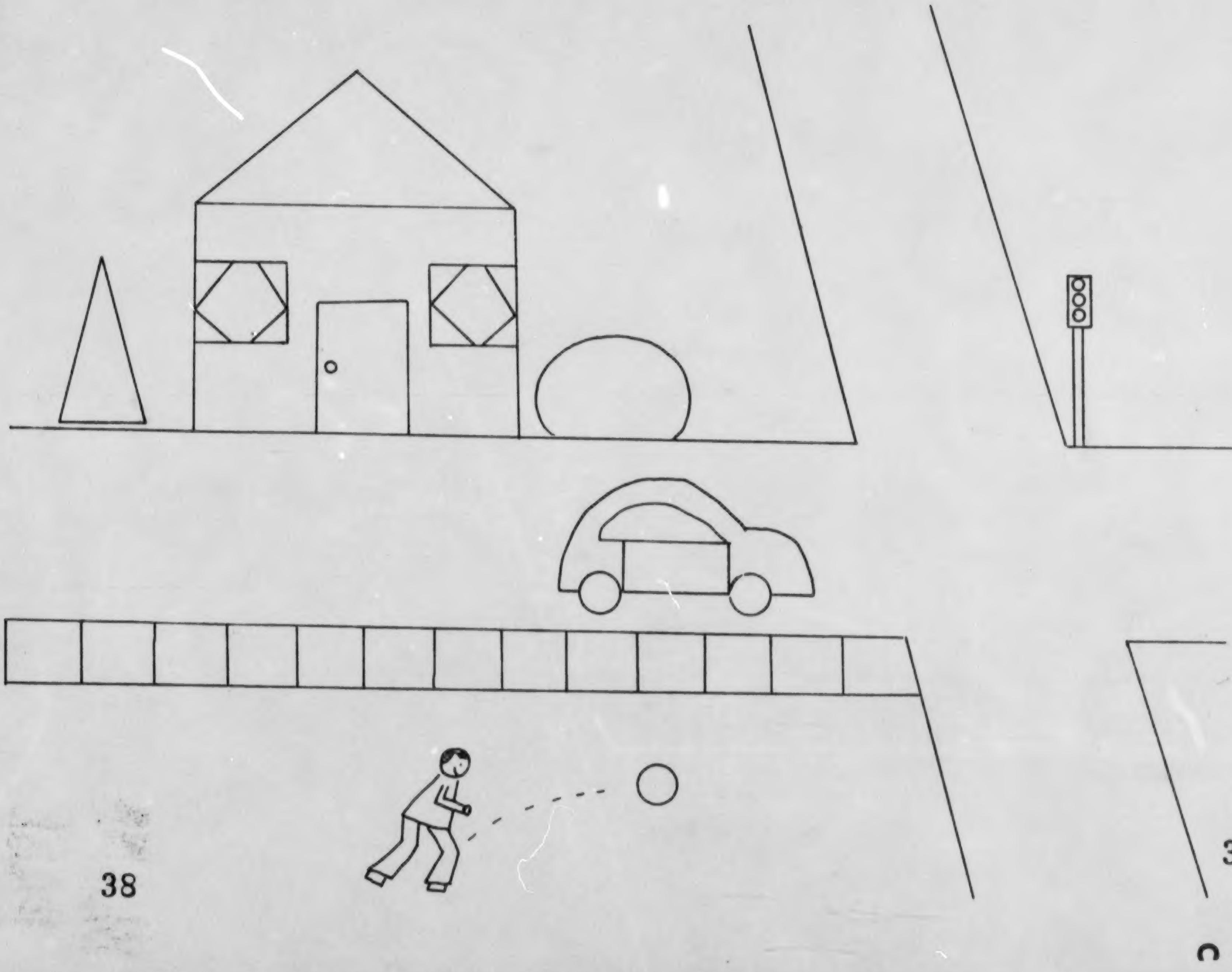
"How can children protect themselves from a killer car like Bruce?" the correspondent was asked.

"I noticed that the youngsters who were smart enough to be out of danger when Bruce was near always kept their eyes moving," the correspondent replied. "They checked one direction, then the other, then behind them, and finally ahead of them. Then they checked everything again and they kept on checking until they were out of the danger area. Those children knew that any vehicle can change speed or direction in seconds. They knew something that all children should know --- the smartest strategy to stay safe: and that is, keep your eyes moving so nothing else that's moving can slip up on you and hurt you."

---

* National Safety Council. School Safety (January-February 1968)
425 N. Michigan Ave., Chicago, Illinois

SHAPE RECOGNITION



C

MASTER FOR REPRODUCTION C

SHAPE RECOGNITION

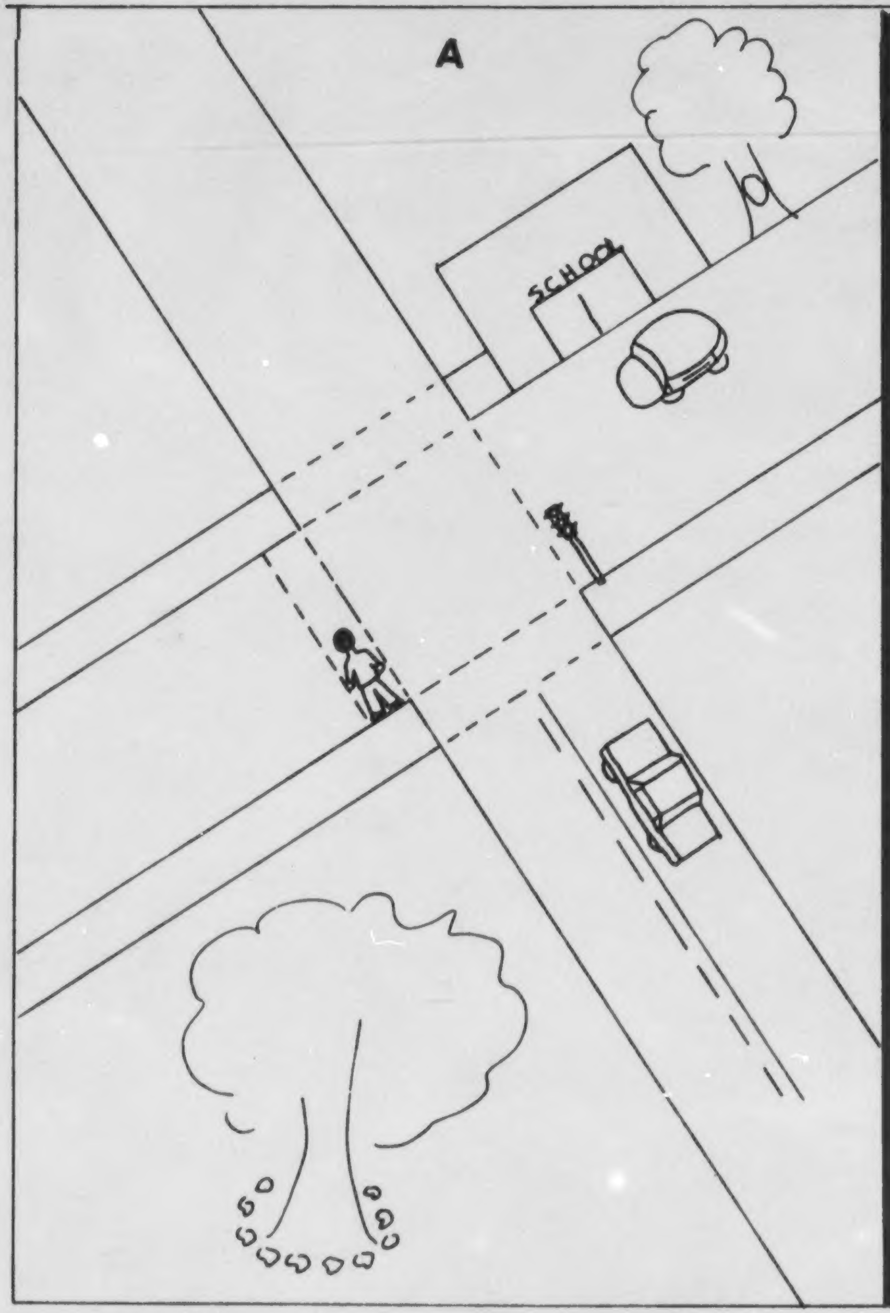
DIRECTIONS

There are many different shapes in this picture. Have the children color them as they locate them. (Children may find others which are less obvious.)

ANSWERS

30 triangles
12 circles
13 squares
22 rectangles
2 hexagons

40



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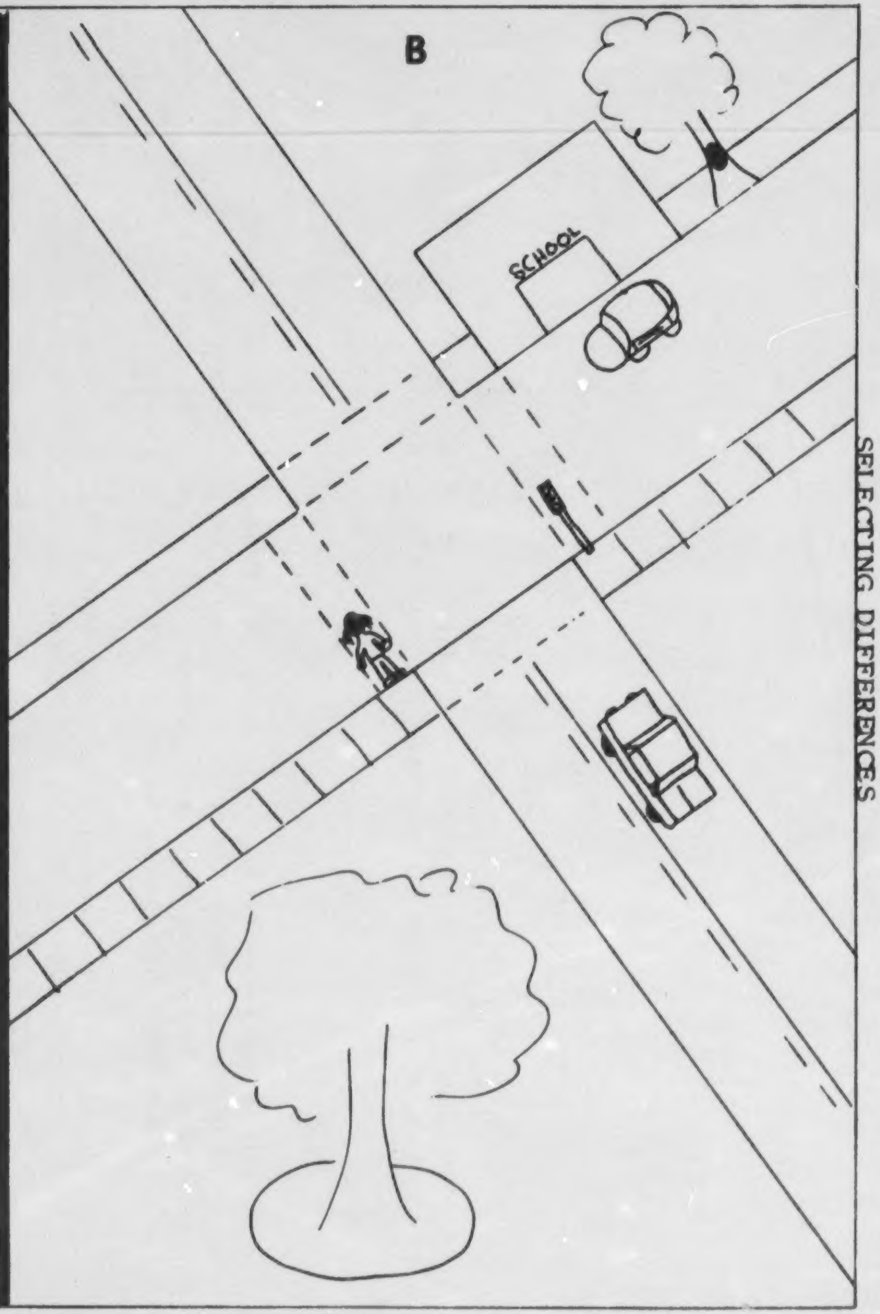


42

D

MASTER FOR REPRODUCTION D

SELECTING DIFFERENCES

DIRECTIONS

Put an X on the things in picture B that are different from the things in picture A.

ANSWERS

Top street-no lines in middle of street. No line in door of school. Hole in center of top tree is colored in. Sidewalk is not complete behind top tree. One line of right hand crosswalk is left off traffic light.

Child in crosswalk-one is boy, one is girl. Lines on lower sidewalk. Wheels of bottom car. Lights on lower car. Lines on bottom street extended to end of page. Trunk of tree (on the bottom) . Rocks around bottom of tree, Picture A.

4. CAN YOU GUESS THE MEANING OF THE SIGN?

Teacher describes a particular sign or symbol. The students then try to guess the meaning of the sign from the description. The following are European signs that tell the individual what to do in a given situation.

1. Two humps (like on a camel's back)
   Meaning: There's a bump in the road ahead, a sharp bump. (NETHERLANDS)

2. The silhouette of a man digging. Meaning: Men are at work on the road ahead. (NETHERLANDS)

3. Cow in the center of a triangular shaped sign.
   Meaning: Beware of animals.

5. SIGNS WITHOUT WORDS

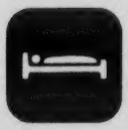
The following signs are examples of 77 strictly visual signs that have been developed to replace verbal signs in the public lands administered by the Forest Service of the U.S. Department of Agriculture, and the National Park Service, Bureau of Land Management and Fish and Wildlife Service, all in the Department of Interior.

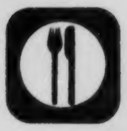
While many of the signs are readily understandable, some do require a short learning period, especially for children. You can easily make transparencies of the following pages from many dry-copying machines. Make an overlay or another transparency in which the names of the signs are opaqued. This will provide you with a tool for quizzing and immediate reinforcement.

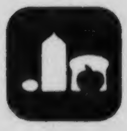
Questions for class discussion might include these:

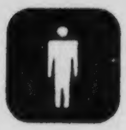
1. Why were the particular symbols for each sign chosen?
2. Why do you think the red slash mark was chosen to mean the activity is prohibited?
3. For example, what would an ice skating sign with a red slash across it tell you about safety?

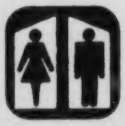
ACCOMMODATIONS OR SERVICE

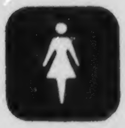

Lodging

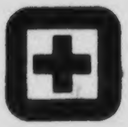

Food Service

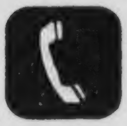

Grocery Store

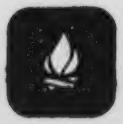

Men's Restroom

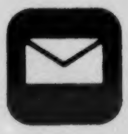

Restrooms

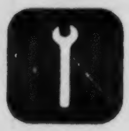

Women's Restroom

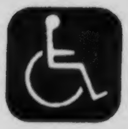

First Aid


Telephone


Campfires*


Post Office


Mechanic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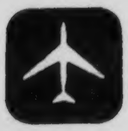
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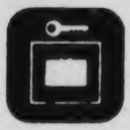
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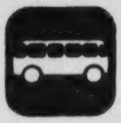
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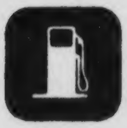
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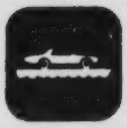
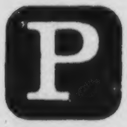

Vehicle Ferry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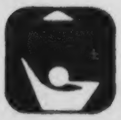
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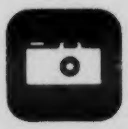
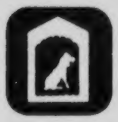
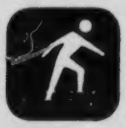
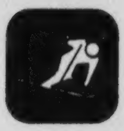
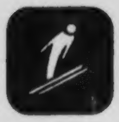

Viewing Area

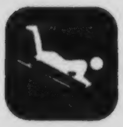

Kennel

WINTER RECREATION


Cross-Country Skiing


Downhill Skiing*


Ski Jumping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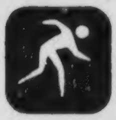
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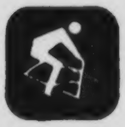
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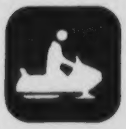
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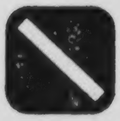
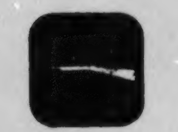

Prohibiting Slash

*Symbol may have red slash mark to indicate activity is not allowed.

GENERAL



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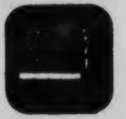
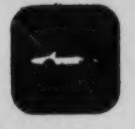
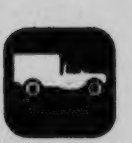


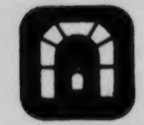
Smoking*



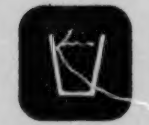
Automobiles*



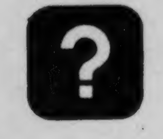
Trucks*



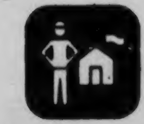
Tunnel



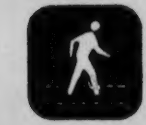
Drinking Water*



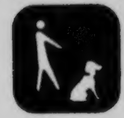
Information



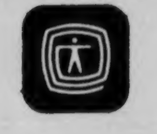
Ranger Station



Pedestrian Crossing*



Pets on Leash*



Environmental Study Area

6. INTERVIEWS - Tape record interviews made by pupils with persons working in a specific traffic related area. Children make up questions for the interview, based on: WHO, WHAT, WHEN, WHERE, WHY, and HOW. Possible candidates may be: School Crossing Guard, Patrolmen, Traffic Engineers, Helicopter Traffic Reporters, School Bus Driver, Taxi Driver, etc.

7. CARTOONING - Draw a cartoon illustrating a pedestrian or vehicle law. Children can use research skills to find out what the specific laws are. Give them hints as to what books are available in the public or school library for obtaining this information.

8. SITUATION PLANNING - Tape an intersection on the floor with masking tape. Using actual signs or cardboard facsimiles ask the children to place the signs in the proper place after giving them verbal directions, as follows:

   a. At which part of the street would you place the stop sign?

   b. What kind of sign could you use if the traffic on this street could only move in one direction?

   c. Select the sign which tells you how fast a vehicle may travel on this street. Who can read the number on the sign? MPH means miles per hour.

   d. Select the sign that tells you that there is a school on this street.

   e. Select the sign that tells you that no vehicles are allowed on this street.

   f. Hold up a Bike Route sign and ask what the sign tells about the street. (It is part of a designated bicycle route.)

9. PICTURE COMPOSITION - Select a picture from a magazine or newspaper that illustrates a traffic law or rule. Have the children write an original story based on what they interpret from the picture.

10. MASTERS FOR REPRODUCTION

F - Traffic Makes the Headlines
G - Draw a Line Through the Word that Does Not Belong
H - Your Opinion Does Count
I - What's In a Word ?

TRAFFIC MAKES THE HEADLINES

Have the children fill in the missing word in the headline.

a. ________________ STOPPED FOR SPEEDING AT 90 MPH.

b. VICTIM COULD HAVE BEEN SAVED IF HE HAD WORN HIS _______________.

c. THE SPEED ___________ IS 30 MPH.

d. WHEN THERE IS NO WALK LIGHT, THE ___________ LIGHT IS THEN USED.

e. THE __________ LIGHT MEANS THE SAME AS DON'T WALK.

f. THE YELLOW LIGHT MEANS THE SAME AS FLASHING __________.

g. THE ____________ LIGHT MEANS THE SAME AS WALK.

h. __________, DON'T RUN BETWEEN THE LINES OF THE CROSSWALK.

i. LOOK _________WAYS BEFORE YOU STEP OFF THE CURB.

j. ALWAYS OBEY THE ___________ IF HE IS DIRECTING TRAFFIC AND NOT THE SIGNAL LIGHT.

MASTER FOR REPRODUCTION F

TRAFFIC MAKES THE HEADLINES

DIRECTIONS

ANSWERS

a) Motorist, car driver

b) seat belt, safety belt

c) limit

d) signal

e) red

f) don't walk

g) green

h) walk

i) both

j) policeman, officer

MASTER FOR REPRODUCTION G

DRAW A LINE THROUGH THE WORD THAT DOES NOT BELONG

1. You may walk run across the street, but don't forget to check for left and right turning vehicles.

2. While using the flashing don't walk sign, continue stop crossing if you are already in the street.

3. While using the flashing don't walk sign if you are at the curb, do do not cross.

4. While reading the wait sign do do not leave the curb.

5. Always never look for turning or moving cars regardless of what the signal is saying.

MASTER FOR REPRODUCTION G

DRAW A LINE THROUGH THE WORD THAT DOES NOT BELONG

DIRECTIONS

Distribute student handout. Ask students to read the sentences and draw a line through the word that does not belong. Discussion can follow with corrected sentences.

YOUR OPINION DOES COUNT!

What would happen if a law were passed saying there can be no more wheels in the world?

Think of three ways you could make a car more fun to ride in.

Write your own law to help pedestrians.

MASTER FOR REPRODUCTION H

DIRECTIONS

Distribute student handout. Ask students to read each question and answer in complete sentences.

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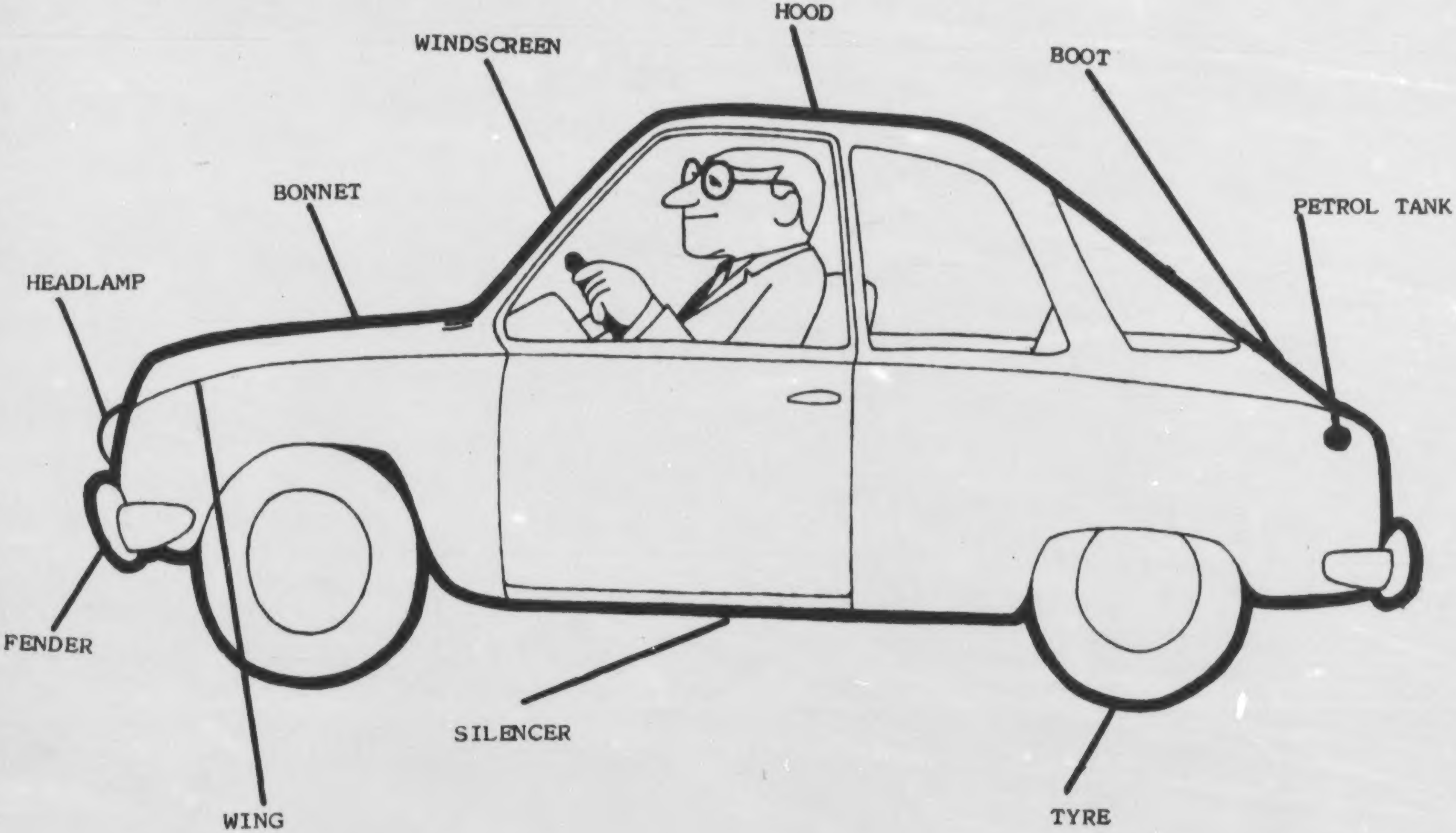
HOOD
WINDSCREEN
BOOT
BONNET
PETROL TANK
HEADLAMP
FENDER
SILENCER
WING
TYRE

MASTER FOR REPRODUCTION I

WHAT'S IN A WORD ?

DIRECTIONS

Ask students to study the automobile on the reproduction page. The automobile is labeled with the British names for ten important parts. Students give the equivalent American name for each part.

ANSWERS

British Term	American Term
petrol tank	gas tank
boot	trunk
hood	roof
windscreen	windshield
bonnet	hood
wing	fender
headlamp	headlight
fender	bumper
tyre	tire
silencer	muffler

From: Contemporary English
Silver-Burdett

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OBJECTIVE: The student will be able to accurately select the reference point (for cars to be behind) that will allow maximum time to cross a street.

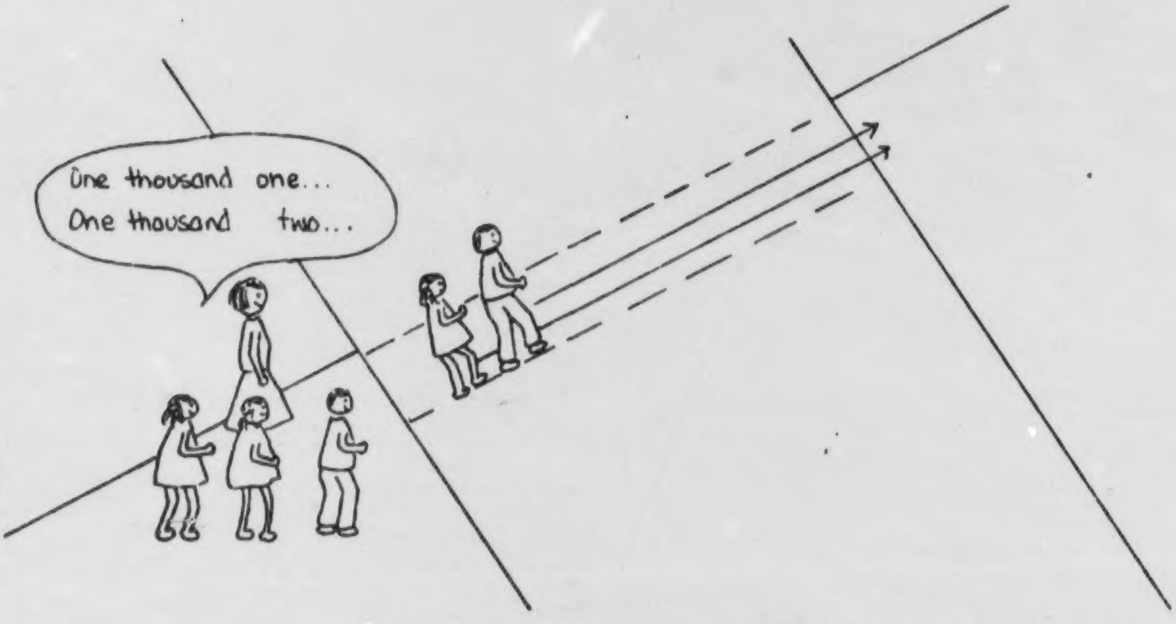
STEP ONE: The student must be able to count in "second" intervals; i.e. one-thousand-one, one-thousand-two, etc.

PROCEDURE: Using a large clock with a second hand, have students count as a group, one-thousand-one, etc., in unison with the second hand. Fourteen seconds is enough. This procedure must be practiced until the students have the ability to count accurate seconds.

STEP TWO (STREET): The student must be able to determine the time that it takes him to cross a street. Approximate timing is as follows:

4-lane street: 12-14 seconds
2-lane street: 10 seconds
1-lane street: 6-8 seconds

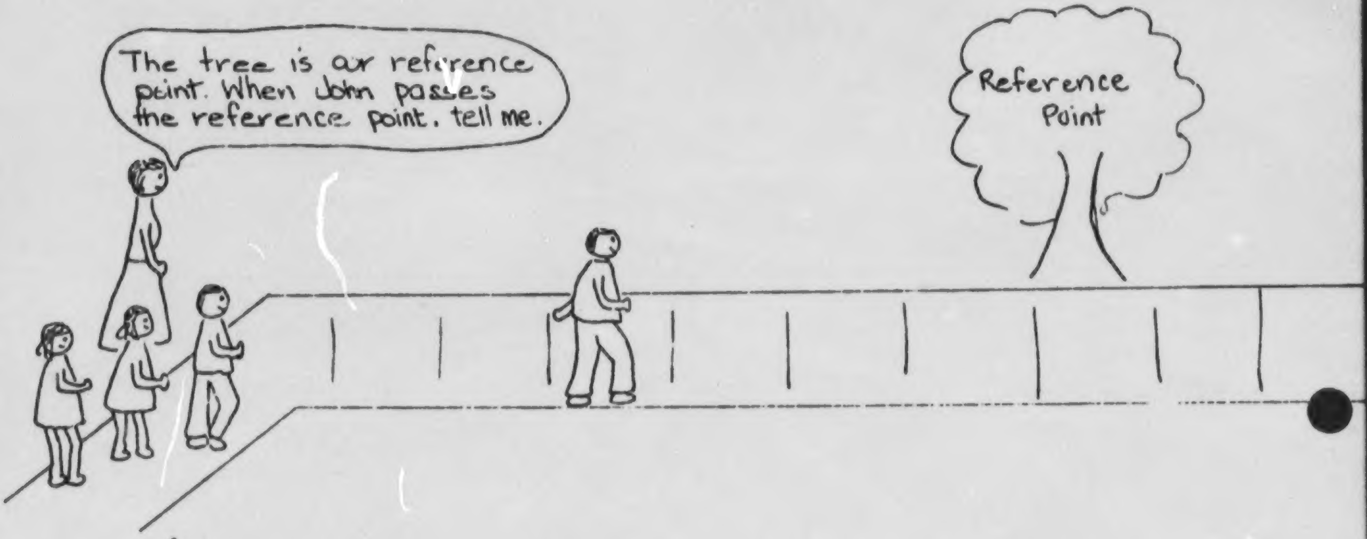
Using a street without much traffic, have the students (2 or 3) walk across the street while the rest of the class is counting. The time will be representative of most of the class. **Students must understand that this is the time they must have in order to get across a street safely.**


One thousand one...
One thousand two...

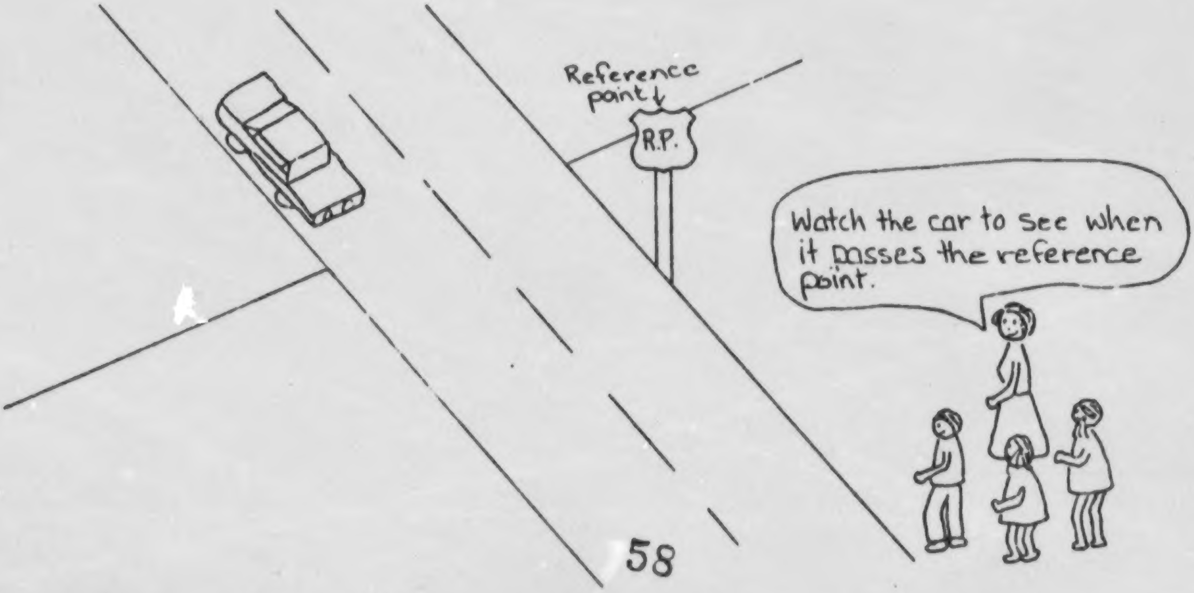
STEP THREE: The student must be able to judge the timing of an object (car) passing predesignated point.

PART a. Have students stand at a given point on a sidewalk. Select a reference point (i.e. sign, post, etc.) and ask the students to indicate when a single person has passed the selected reference point.

NOTE: A reference point can be any object (tree, sign, shadow, parked car, etc.) which marks the distance from you that a car must be in order for you to safely cross the street.


The tree is our reference point. When John passes the reference point. tell me.
Reference Point

When the children have the idea, proceed to choose a reference point in the street for cars to pass. Practice this until understood.


Reference point
R.P.
Watch the car to see when it passes the reference point.

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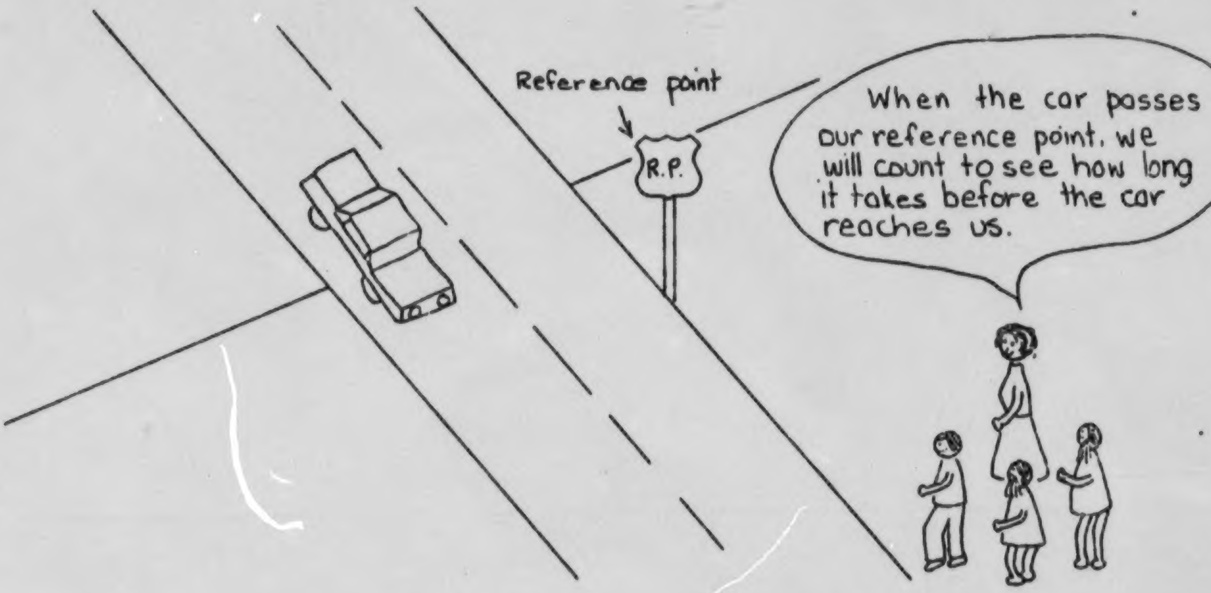
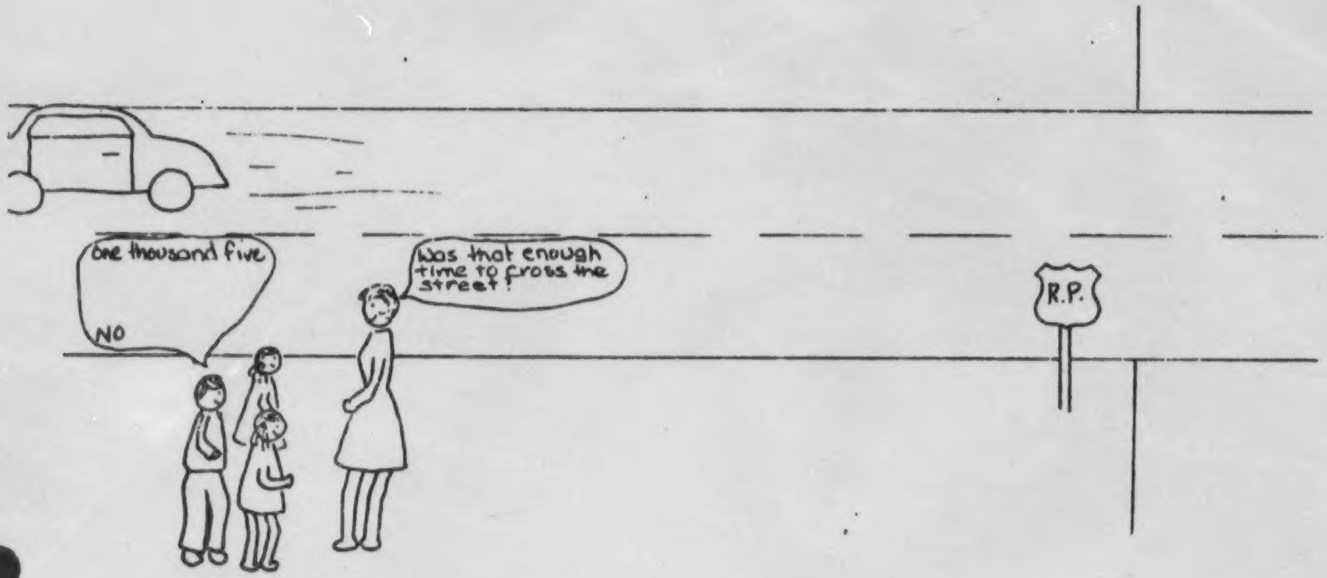
C

PART b: Select or have students select a point. Explain that we now are going to count the distance from that point when a car passes it to where we are standing. (The distance should be lower than 12 seconds for sequential building.)

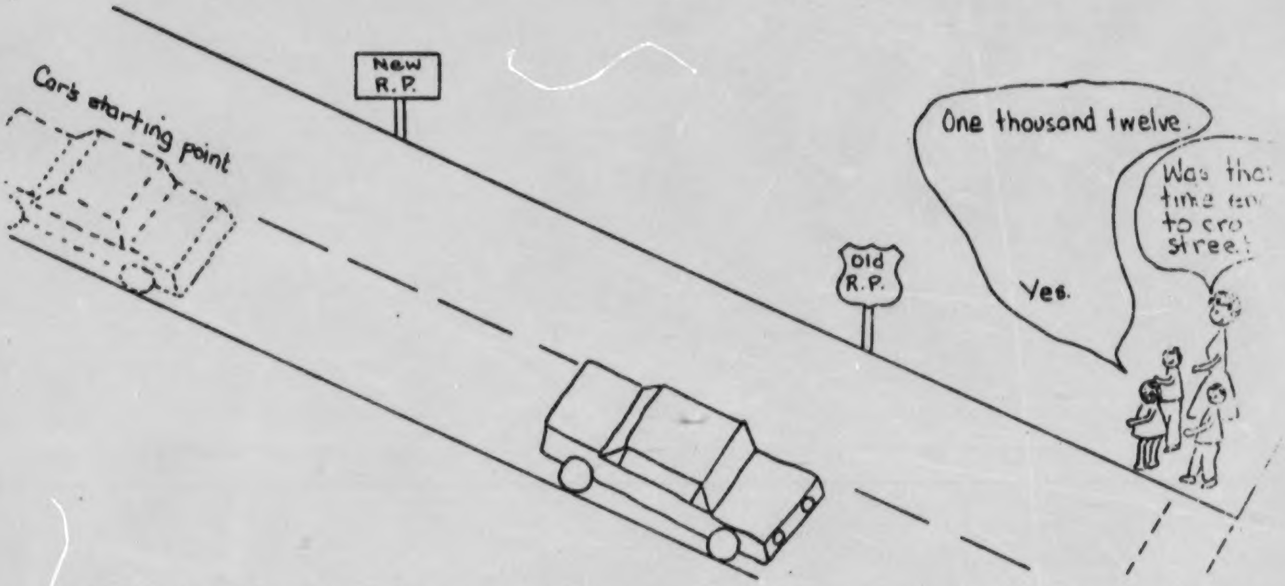

Reference point
R.P.
When the car passes our reference point, we will count to see how long it takes before the car reaches us.

After the distance is calculated, ask students if that was enough time to cross the street. The answer should be no.


one thousand five
NO
Was that enough time to cross the street!
R.P.

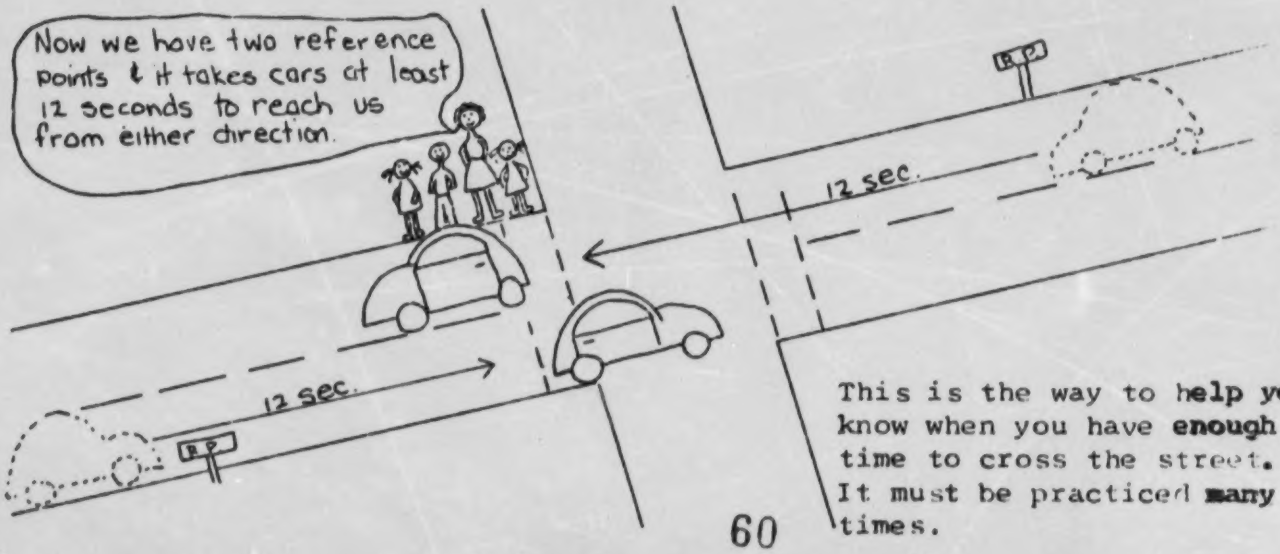
PART c: Now let's pick a reference point farther away to see if we can find one with the time we need. Follow this procedure and tell the students **to find** the reference point that allows enough time.

PART d: Repeat the same procedure in the opposite direc**tion**


New R.P.
Car's starting point
Old R.P.
One thousand twelve.
Was the time en to cro stree.
Yes.

STEP 4: We now have the reference points we need to tell us when **we** have enough time to cross safely. We now know that cars **must** be in back of these points to have enough time to cross **the** street without getting hit. We must remember these two reference points.

Let's practice with these reference points. Does everyo**ne** know what these points are? When I say "now" I want **you to** look both ways and tell me if you have enough time to cr**oss.** Practice until the students are proficient at the task.


Now we have two reference points & it takes cars at least 12 seconds to reach us from either direction.
R.P.
12 sec.
12 sec.
R.P.

This is the way to **help you** know when you have **enough** time to cross the street. It must be practiced **many** times.

OBJECTIVES: Having experienced several activities concerned with the relationship of time, distance, and speed the students will be able to:

1. Read and interpret a bar graph detailing the distance a car covers in one second.
2. Calculate the relationship between speed reaction time, braking distance, and stopping distance.
3. Calculate how far a car travels in a given second.
4. Determine mathematically which car travels the farthest distance when given specific information.
5. Determine mathematically which car travels the shortest distance when given specific information.
6. Assess mathematically speed, time and distance relative to automobiles and pedestrians in specific situations.

The following activities are a summary of all activities concerned with the relationship of time, distance, and speed, and are designed to reinforce the inter-relationship of these factors.

J - Reading and Interpreting Bar Graphs - Distance a Car Covers in One Second - Students determine from bar graph:

- How far a car has traveled.
- Distance a car covers in one second.
- Miles per hour.
- Distance covered in feet.

K - Bar Graph Activity - Given specific information, the student plots a bar graph to show the relationship between speed, reaction time, braking distance, and stopping distance.

L - Speed-Distance-Time Relationship Word Problems - Given specific information, the students determine:

- How many feet a car travels in five seconds.
- Which car traveled the shortest distance.
- Which car traveled the farthest distance.

M - Integers - Multiplication and Division of Integers - Like the sum of two integers, the products of two integers can be determined by relying on a basic principle or by considering the physical interpretations that suggest what the product should be. One physical interpretation that suggests a rationale for the multiplication of integers is shown in the activity on the Master for Reproduction.

N - Space Time - Distance Activity - Designed to be used as a model for manipulative activity for a group of students or for the individual student. This activity is designed to demonstrate the speed, time, and distance relationship involving automobiles and pedestrians.

O - Space, Time, and Distance Judgment - Designed to be used as a model for group or individual manipulative activity. This activity demonstrates the space, time, and distance relationship of various speeds of cars using the principle of the lever with a string in the book.

P - Relationship of Speed, Time, Distance - Designed to be used as a model for a manipulative activity for group or individual students. This activity is concerned with demonstrating the space, time, and distance relationship of various speeds of cars, using the principle of the pulley or wheel.

STOPPING DISTANCE

INTRODUCTION

Quick reactions will not significantly reduce stopping distances. The difference between average reaction time and the very best reaction time is not great. Average reaction time is about three-quarters of a second. Rare individuals, crack test pilots, or athletes, can cut that to about one-quarter of a second. In terms of distance, average reaction time in a car at 60 mph is 66 feet. An astronaut might cut that to about 22 feet.

But the braking distance remains the same for all. Superfast reactions only reduce the average stopping distance total at 60 mph by 44 feet - from 366 feet to 322. Obviously, quick reactions alone are not enough.

BACKGROUND INFORMATION

Stopping distance is composed of:

(1) Reaction Time - "Reaction time distance" is the distance your car travels during the time it takes you to notice a hazard, take your foot from the accelerator pedal, and begin to depress the brake. (Average reaction time is about three-fourths of a second.)

(2) Braking Time - "Braking time distance" is the distance your car travels after the brakes have been applied. Minimum total stopping distances increases as your speed increases.

1. REACTION TIME AND STOPPING DISTANCE

1. The average driver usually takes 0.75 of a second (or more) to react after a hazard comes into view. In this case we will use 0.75 of a second as Mr. Smith's reaction time. Two hundred feet down the road, Mr. Smith sees a farm vehicle turn onto the road in front of him. He hit the brake pedal. (This is called reaction time.) Traveling at 50 mph, the car is traveling at 73.3 feet per second. How many feet did Mr. Smith's car travel in the 0.75 of a second it took him to react and hit the brake?

2. On a hard surface road, with good tires and good brakes, it took about 3.6 seconds. The car traveled another 133 feet farther. (This is called braking time.) Find the total number of feet required to stop the car. How many feet was Mr. Smith's car from the farm vehicle when he got the car stopped? Is this stopping distance more or less than the length of a football field?

ANSWERS:

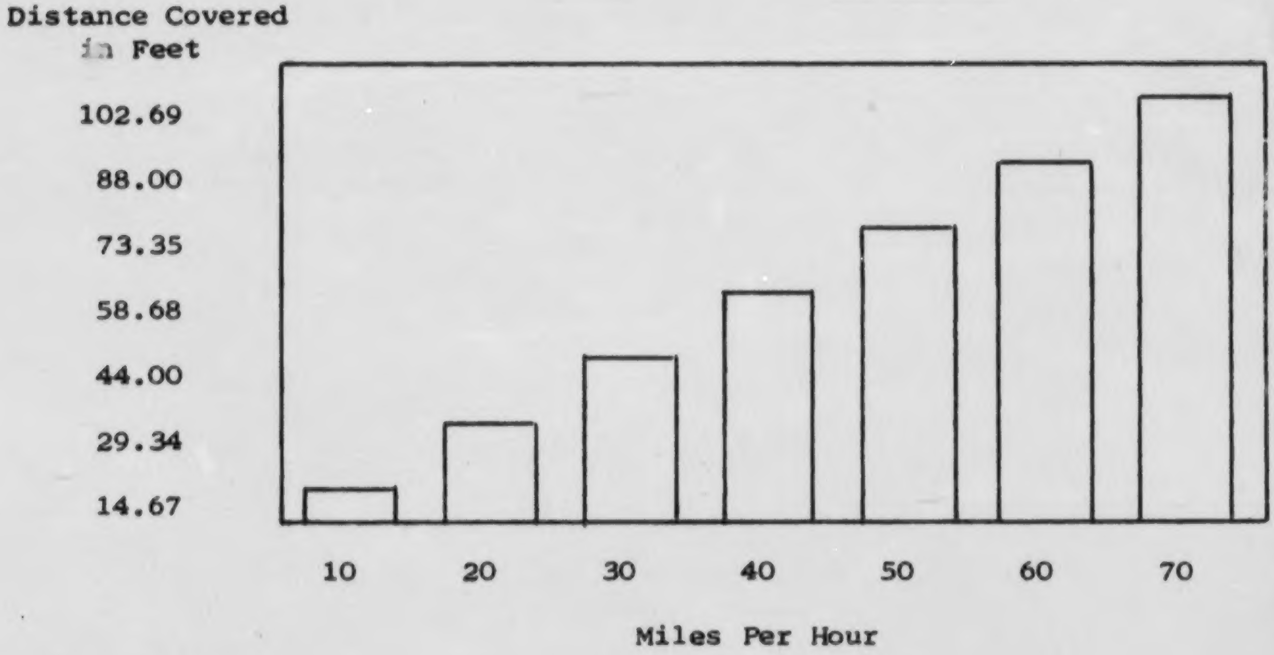
1. 73.3 ft. per signal
× .75 seconds
3665
5131
54.975 55 feet to hit the brake

2. 133
+ 55
188 feet to stop the car 12 feet from the farm vehicle

* A football field from goal post to goal post measures 100 yards.

READING AND INTERPRETING BAR GRAPHS

TITLE: DISTANCE CAR COVERS IN ONE SECOND



ANSWER THE FOLLOWING QUESTIONS:

1. What does this graph show?
2. What is the title of the graph?
3. What do the numbers at the bottom indicate?
4. What do the numbers at the left show?
5. Which car travels the least distance in one second?
6. Which car travels the greatest distance in one second?
7. Traveling at 10 mph, how much distance is covered in one second?
8. How much distance have you covered in one second traveling at 60 miles per hour?
9. If you doubled the distance you traveled at 30 miles per hour, how much distance have you covered (feet)?

MASTER FOR REPRODUCTION J

DISTANCE A CAR COVERS IN ONE SECOND

DIRECTIONS

Distribute student handout. Ask students to study bar graph. Have students read questions and interpret answers using the bar graph.

ANSWERS

1. How fast a car is going and how far he has traveled.
2. Distance car covers in one second.
3. Miles per hour.
4. Distance covered in feet.
5. The car going 10 mph.
6. The car going 70 mph.
7. 14.67 feet
8. 88 feet
9. 88 feet

MASTER FOR REPRODUCTION K

BAR GRAPH ACTIVITY

DIRECTIONS

Using the following information, plot a bar graph to show the relationships between speed, reaction time, braking distance and stopping distance.

MPH	REACTION	BRAKING	TOTAL
70	77'	304'	381'
60	66'	206'	272'
50	55'	133'	188'
40	44'	81'	125'
30	33'	45'	78'
20	22'	23'	45'
10	11'	9'	20'

L

SPEED-DISTANCE-TIME RELATIONSHIP WORD PROBLEMS

Refer to the table below to find the solutions to the following problems.

MILES PER HOUR	ONE SECOND
70	102.69 feet covered
60	88.00 feet covered
50	73.35 feet covered
40	58.68 feet covered
30	44.00 feet covered
20	29.34 feet covered
10	14.67 feet covered

1. How many feet will each car travel in 5 seconds?

   Car A - 10 mph ____________
   Car B - 20 mph ____________
   Car C - 30 mph ____________
   Car D - 40 mph ____________
   Car E - 50 mph ____________
   Car F - 60 mph ____________
   Car G - 70 mph ____________

2. Which car traveled the farthest distance? __________
   Why? ____

3. Which car traveled the shortest distance? _____
   Why? ____

Answer TRUE or FALSE to the following questions.

1. At 30 mph a car would travel 87.00 feet in two seconds.
   TRUE or FALSE

2. A racing car traveling 140 miles per hour in one second is covering 205.38 feet. TRUE or FALSE

3. A car traveling at 10 miles per hour in 10 seconds would cover more feet than a car traveling 60 miles per hour in one second.
   TRUE or FALSE

4. A car that covered 29.34 feet in one second will have been traveling at 20 miles per hour. TRUE or FALSE

MASTER FOR REPRODUCTION L

SPEED - DISTANCE - TIME RELATIONSHIP WORD PROBLEMS

DIRECTIONS

Distribute student handout. Students read table and answer word problems.

ANSWERS

1. A-73.35
   B-146.70
   C-220
   D-293.40
   E-366.75
   F-440
   G-513.45

2. Car G
   Because it was going the fastest.

3. Car A
   Because it was going the slowest.

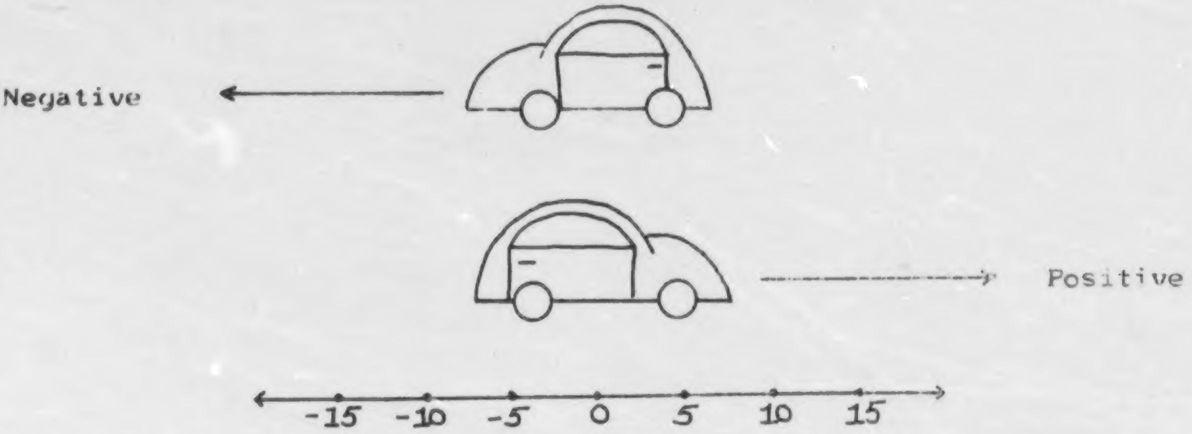
TRUE OR FALSE

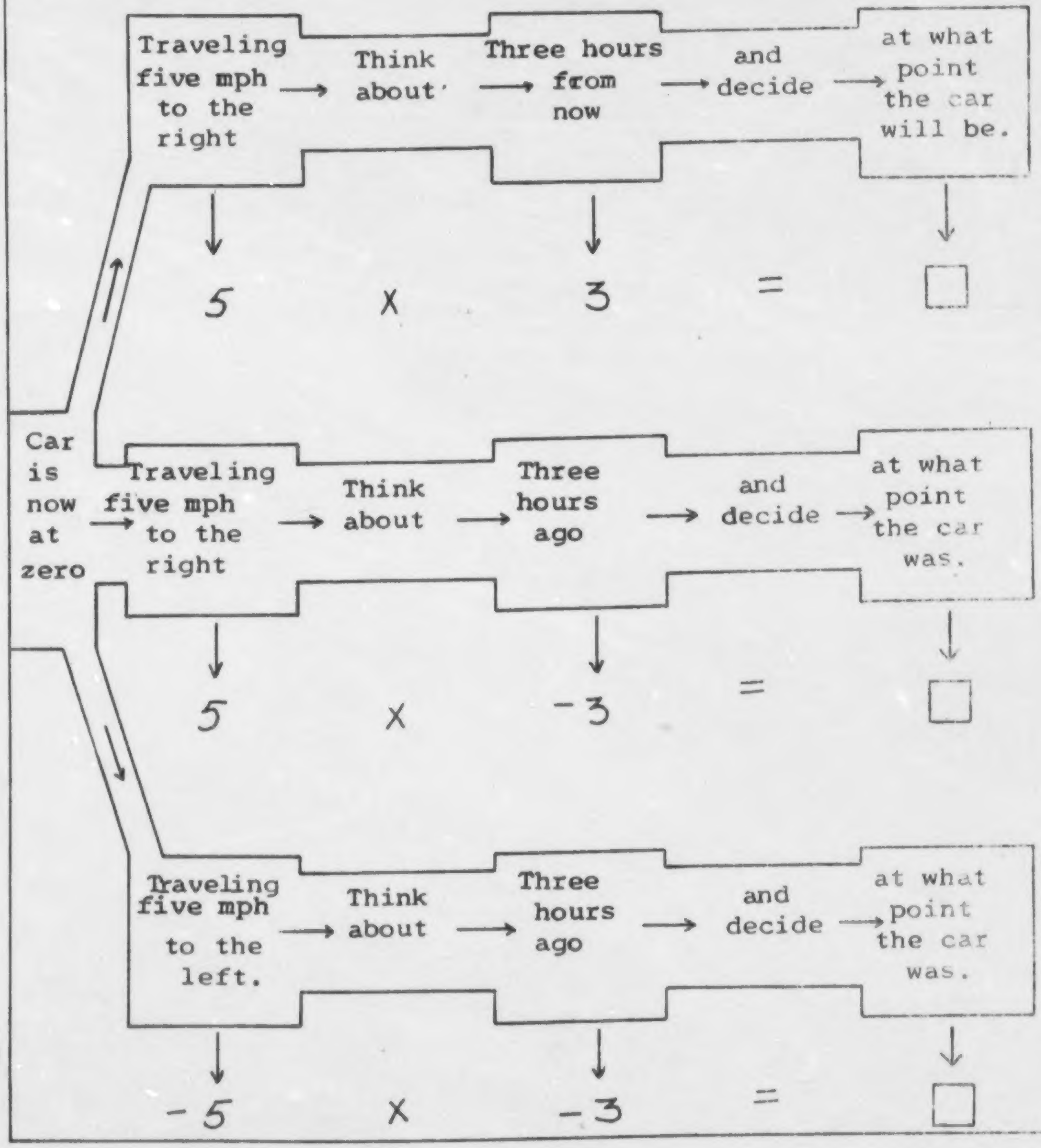
1. False

2. True

3. True

4. True





Car is now at zero →

Traveling five mph to the right → Think about → Three hours from now → and decide → at what point the car will be.

$5 \times 3 = \square$

Traveling five mph to the right → Think about → Three hours ago → and decide → at what point the car was.

$5 \times -3 = \square$

Traveling five mph to the left. → Think about → Three hours ago → and decide → at what point the car was.

$-5 \times -3 = \square$

From: Elementary School Mathematics Primer, Second Edition. Addison Wesley

MASTER FOR REPRODUCTION M

INTEGERS

DIRECTIONS

Distribute student handout. Students compute answers.

ANSWERS

15

-15

15

71

MASTER FOR REPRODUCTION N

SPACE, TIME, DISTANCE ACTIVITY

The following activity is designed to demonstrate the speed, time, and distance relationships involving automobiles and pedestrians. The activity may be used as a demonstration by the teacher or an activity for independent student work.

Master for Reproduction N is designed to be used for exact duplication or as a guide for a larger size model. You may wish to have students experiment with the various car speeds and placement of the strings on the lever and discover proportional relationships after model is built using a mathematical approach in assessing speeds (See O, page 63-64) of the lever (in assembly) to decide where the strings should be connected to the lever on the back. Speeds of cars can be used to work out mathematical relationships, i.e., assign a specific speed to the car covering the greatest distance. Calculate the speeds of other cars comparing distance they covered with distance covered by car with known speed, etc.

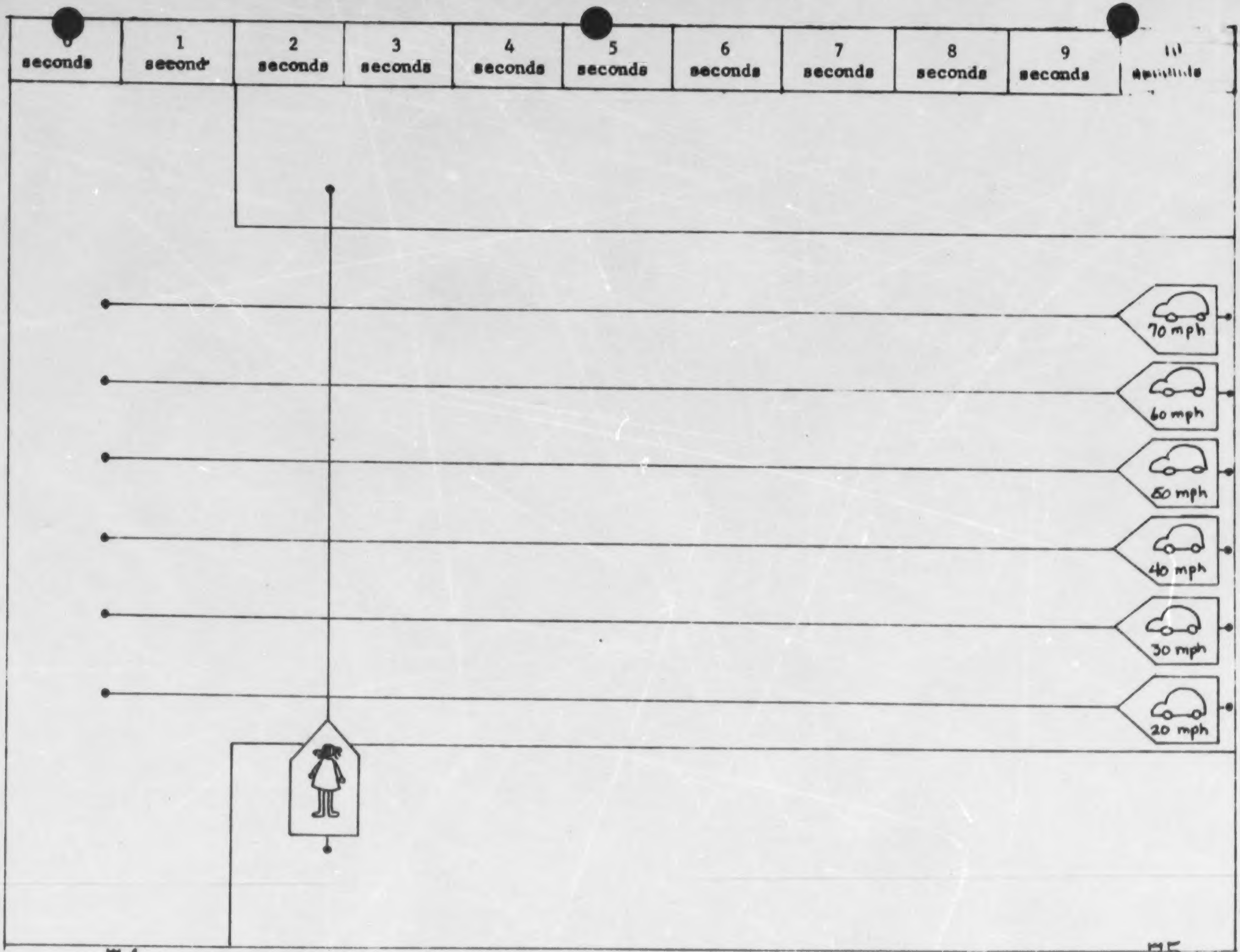
DIRECTIONS FOR CONSTRUCTION OF THE MODEL

On a piece of ¼" thick plywood or stiff cardboard, approximately 15" X 36" , draw or paint a street and intersection in similar proportion to the illustration. Drill or punch holes as illustrated at the ends of each string line. Use a yardstick to act as a lever on the back of the board. Attach lever as illustrated. Run string through each car path and attach to back lever as illustrated. Note: Pedestrian string must have additional length to attain proper relationship to car strings.

The pedestrian string must be placed under the car strings. Cut out paper wedges with cars and a pedestrian as depicted and glue them to the string with lever in left hand corner of board. Add a time scale in second intervals to ten at the top of the board.

How to work the model: Move the lever from left to right in second intervals. Cars will move in proportion to their designated speed. If the illustrated speeds are used, the cars should illustrate proportional relationship where the lever is moved on the time scale. Minor adjustment may have to be made on the lever to achieve this. If properly designed, the pedestrian should get run over by the two fastest cars, illustrating the lack of time needed to get across the street at these particular times.

Note: The accompanying sketch may be used as a pattern as it appears. However, the small size could complicate the smooth movements of the parts.


0 seconds
1 second
2 seconds
3 seconds
4 seconds
5 seconds
6 seconds
7 seconds
8 seconds
9 seconds
10 seconds
70 mph
60 mph
50 mph
40 mph
30 mph
20 mph

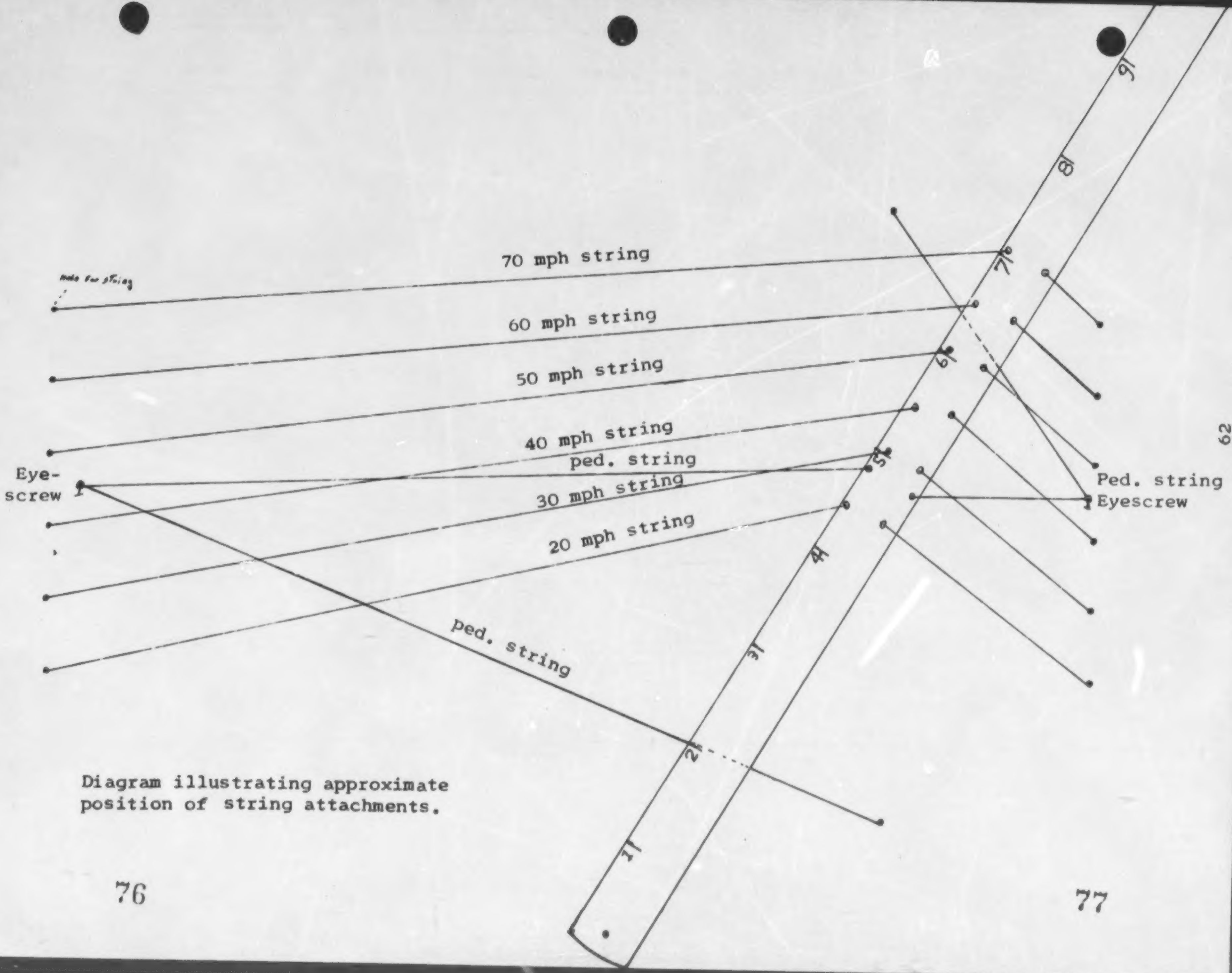
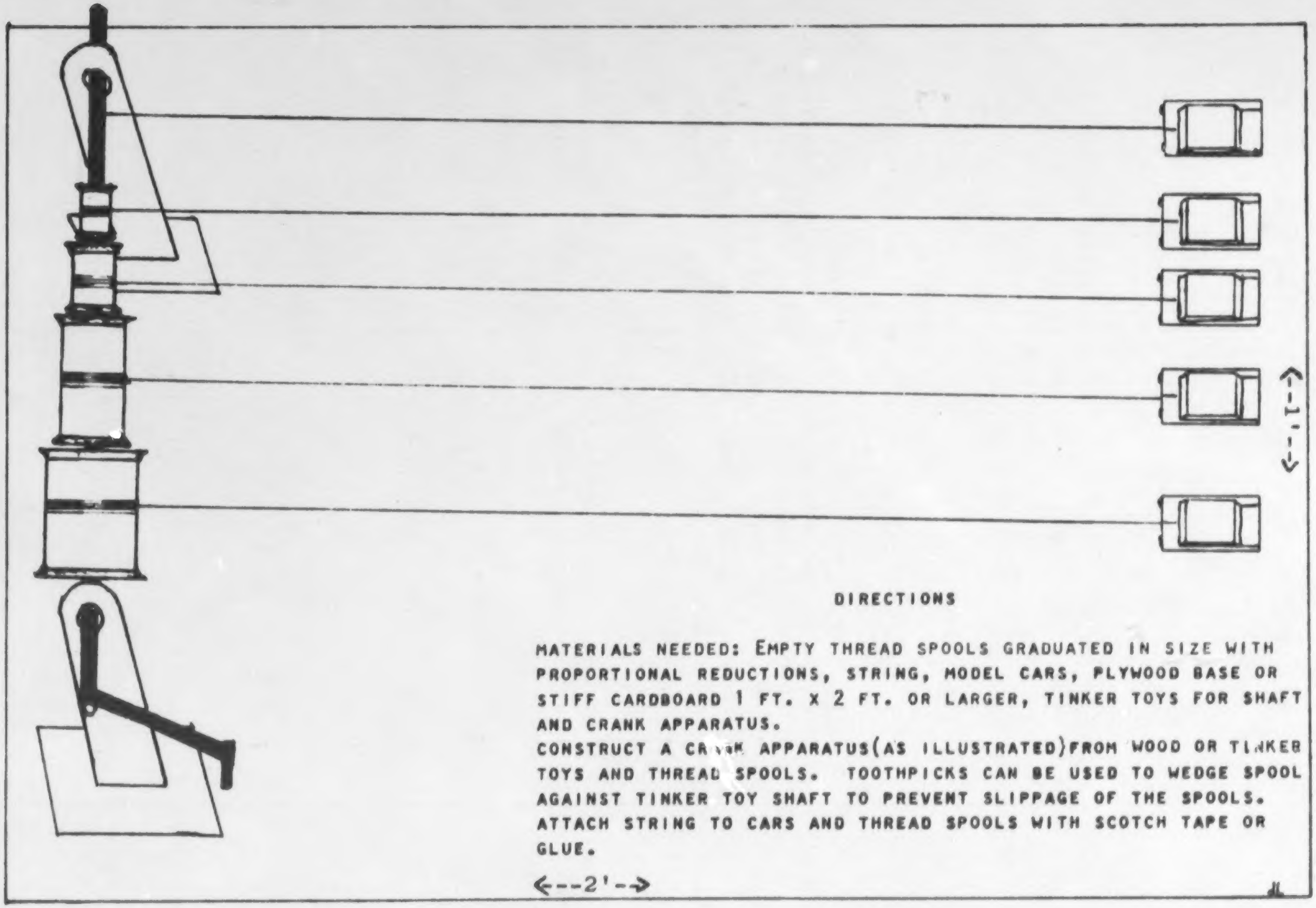

Hole for string
70 mph string
60 mph string
50 mph string
40 mph string
ped. string
30 mph string
20 mph string
ped. string
Eye-
screw
1
2
3
4
5
6
7
8
9
Ped. string
Eyescrew

Diagram illustrating approximate position of string attachments.

SPACE TIME AND DISTANCE JUDGEMENT ACTIVITY
(Model for Construction)



DIRECTIONS

MATERIALS NEEDED: EMPTY THREAD SPOOLS GRADUATED IN SIZE WITH PROPORTIONAL REDUCTIONS, STRING, MODEL CARS, PLYWOOD BASE OR STIFF CARDBOARD 1 FT. X 2 FT. OR LARGER, TINKER TOYS FOR SHAFT AND CRANK APPARATUS.

CONSTRUCT A CRANK APPARATUS(AS ILLUSTRATED)FROM WOOD OR TINKER TOYS AND THREAD SPOOLS. TOOTHPICKS CAN BE USED TO WEDGE SPOOL AGAINST TINKER TOY SHAFT TO PREVENT SLIPPAGE OF THE SPOOLS. ATTACH STRING TO CARS AND THREAD SPOOLS WITH SCOTCH TAPE OR GLUE.

MASTER FOR REPRODUCTION O

DEMONSTRATING SPACE, TIME, AND DISTANCE RELATIONSHIP

DIRECTIONS

This activity is concerned with demonstrating the space, time, and distance relationship of various speeds of cars. It utilizes the introduction to the principle of the pulley or wheel - diameter, circumference, etc.

Have students construct model as illustrated on the following page. When the crank is turned, the cars will advance at different rates: one turn equals one second of time elapsed (one half turn could be used to equal one second). Assign the speed of 60 mph to the car with the largest spool. Ask students to calculate speed of the other cars in the following manner: If the car attached to the largest spool goes two inches in one turn (one second) and another car moves one and one-half inches; calculate its speed by: one and one-half inches is what portion of two inches - (3/4 x 60) = 45 mph. The speed of the other cars can be calculated in the same manner.

The variations of speeds will differ in proportion to the sizes of the thread spools. Math problems with circumferences and diameters can also be developed with this activity.

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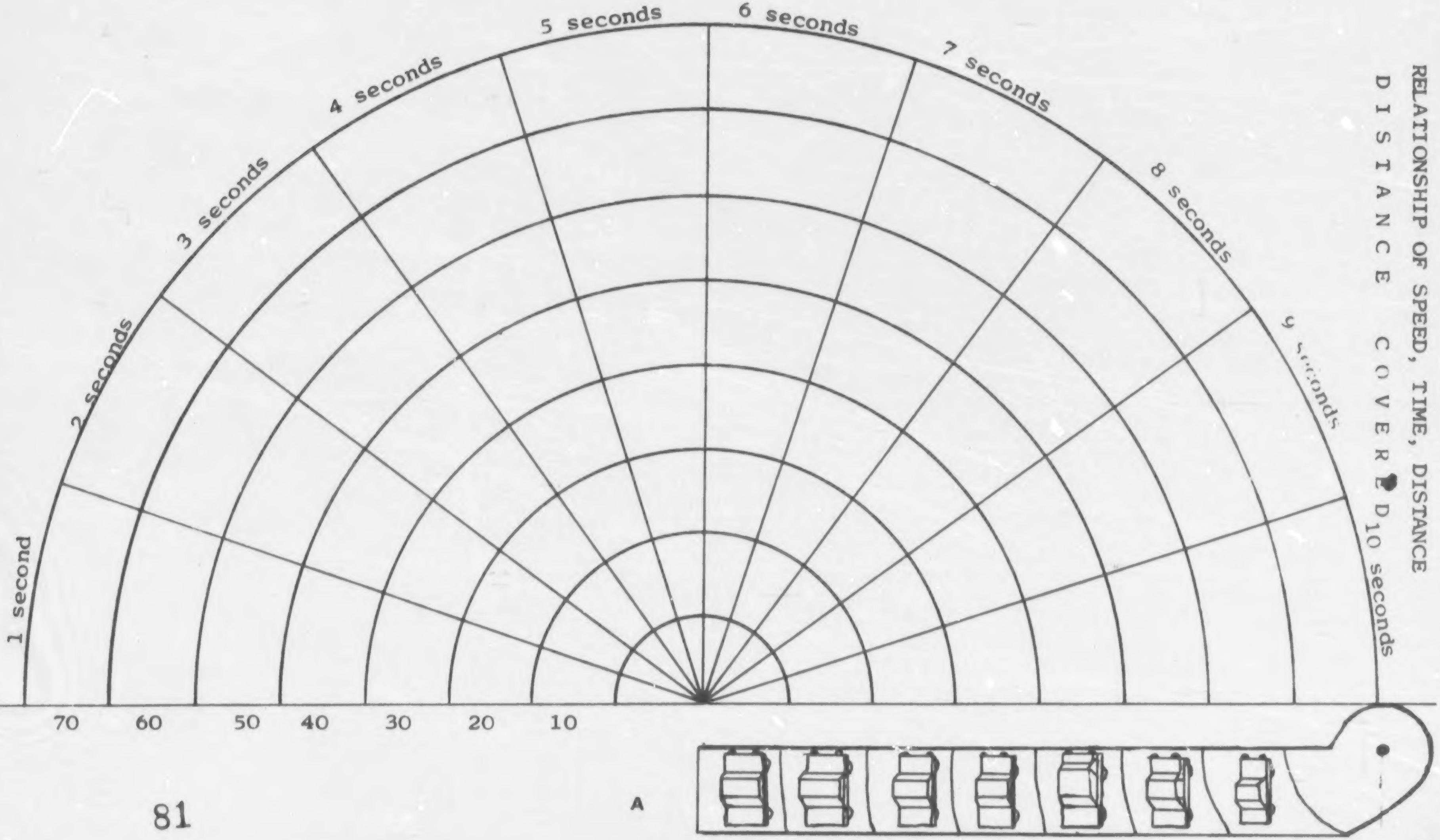
RELATIONSHIP OF SPEED, TIME, DISTANCE

DISTANCE COVERED


1 second
2 seconds
3 seconds
4 seconds
5 seconds
6 seconds
7 seconds
8 seconds
9 seconds
10 seconds
B
70
60
50
40
30
20
10
A

65

P

RELATIONSHIP OF SPEED, TIME AND DISTANCE

TO THE TEACHER

1. Cut out Part A. (Bar containing pictures of cars.)
2. Fasten Part A to Part B allowing Part A to move in a circular motion.

The purpose of this activity is to demonstrate the relationship of speed, time, and distance. This type of activity is necessary for the understanding of gap time assessment techniques.

Master graph may be used as transparency or mounted on cardboard.

Present the chart which follows and discuss the following:

Explain the title of the chart.

This chart pictures a type of numerical relationship between three kinds of information. The numbers on the left hand side at the lower portion represent miles per hour in tens, i.e. 10, 20, 30, etc. (An understanding of m.p.h. is not a skill required at fifth grade level for the understanding of the concept to be developed at this time.)

The data pictured in the form of a circle graph shows one-second intervals from one second to ten seconds.

The arm portion of the graph pictures seven individual cars identified alphabetically A through G.

Demonstrate the graph by placing the arm on the base line indicating miles per hour. Each car is there to represent distance covered by vehicles at different speeds. (Give explanation of the paths or lanes.) Explain also that each car is placed in a path or lane like you might find on a super highway, i.e. Car A is in a 10 mph lane, Car B is in a 20 mph lane, Car C is in a 30 mph lane, etc.

Move the arm one space at a time. While moving the arm have the children respond orally, naming each one-second interval, i.e. one second, two seconds, three seconds, etc. To reinforce the one-second interval, select individual children to come to the graph and move the lever to specific markings, i.e. "Show where the lever would be at the end of three seconds."

ACTIVITY - Relationship of Speed, Time, and Distance

Master for Reproduction P is designed to reinforce the relationship of speed, time, and distance. The following are discussion activities to correspond with the graph.

Discuss:

1. What is the title of the chart?
2. What do the numbers at the lower left tell us?
3. What do the numbers at each interval tell us?
4. What do the paths each car is in represent?
5. Why is it necessary to have the cars move around the circle?

Move the arm to the one second interval line. Discuss:

1. Have all the cars traveled the same amount of time? (Yes)
2. How much time have they traveled? (One second)

Move the arm to the five-second interval line. Repeat questions.

Move the line of cars to the ten second interval. Repeat questions.

Move the arm to one second interval line. Instruct the children to color in the one second interval space at 10 mph, at 40 mph, and at 70 mph.

Discuss:

1. In which space did you have to color the most? (70 mph)
2. In which space did you color the least? (10 mph)
3. After one second, which car covered the most distance? (70 mph)
4. Which car covered the least distance? (10 mph)
5. Repeat instructions at the end of five second interval line and ten second interval line.

Children should be able to visualize that the car traveling at a higher rate of speed covers more distance than the cars traveling at a lower rate of speed.

To be used with Master for Reproduction P.

MILES PER HOUR

SECONDS	10 MPH	20 MPH	30 MPH	40 MPH	50 MPH	60 MPH	70 MPH
1	14.67	29.34	44	58.68	73.35	88	102.69
2	29.34	58.68	88	117.36	146.70	176	205.38
3	44.01	88.02	132	176.04	220.05	264	308.07
4	58.68	117.36	176	234.72	293.40	352	410.76
5	73.35	146.70	220	293.40	366.75	440	513.45
6	88.02	176.04	264	352.08	440.10	528	616.14
7	102.69	205.38	308	410.76	513.45	616	718.83
8	117.36	234.72	352	469.44	586.80	704	821.52
9	132.02	264.06	396	528.12	660.15	792	924.21
10	146.70	293.40	440	586.80	733.50	880	1,026.90

OBJECTIVE: The children will be able to demonstrate the advantages - potentials and limitations of retro-reflective material.

TEACHER INFORMATION

We are concerned in this chapter with safety at night, at dusk, and in bad weather. It is based on the theory that to be safe you must stand out or contrast with the background so the motorists can see you. For example, a pedestrian dressed in white can be seen four times as far as one dressed in dark clothing. In bad weather, visibility of both pedestrians and drivers is substantially reduced. Children should wear bright-colored raincoats and boots. If they carry umbrellas, they should be sure their vision is not obstructed. Remembering the need for contrast, dark-colored clothing should be worn on snowy winter afternoons or nights. Bike reflectors should be visible for 100 feet, headlights should be visible for 500 feet.

The study of light and reflective material has a direct bearing upon safety at night. Children must know the nature of light and reflection in order to have a better appreciation of the rules regarding walking after dark.

Reflective material has the ability to bounce light back directly to its source, and to do so for a long distance. Everything around us reflects some light.

The definition of reflection is the bouncing back of a ray of light from a surface.

There are several types of reflection. Most objects are DIFFUSE reflectors -- light striking them is reflected in all directions. This is why they are hard to see at night. There is little light to be reflected, and what there is is scattered in many directions and not back to the light source.

MIRROR REFLECTION - reflects light in only one direction, but unless the light source is directly in front of the mirror, this direction is away from the source.

RETRO-REFLECTIVE MATERIAL - contains millions of tiny prisms or glass beads. Light striking on one of these prisms or beads is focused within the structure and reflected directly back to the source.

OTHER USES FOR RETRO-REFLECTIVE MATERIALS

1. License plates
2. Highway signs
3. Chalk containing the glass beads for marking garments and objects temporarily
4. Spray paint with retro-reflective beads suspended in it so that any surface that can be painted can be reflectorized
5. All night time pedestrians should be protected by some form of retro-reflective material. It is readily available and easy to use. It could save your life.

Thousands of pedestrians are killed in after-dark accidents while countless more night walkers are injured. And one of the major reasons these accidents happen is simply that the car drivers are not able to see the pedestrians.

The only solution to the problem would be to make sure the pedestrians can be seen from far enough away to give the driver time to stop.

MASTERS FOR REPRODUCTION

Types of Reflectors

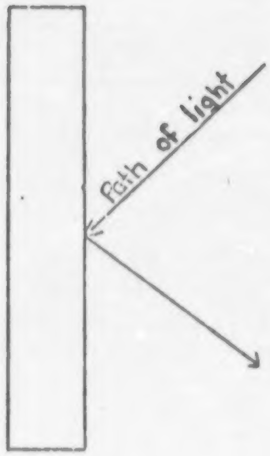
Q - Mirror

R - Diffuse Reflectors

S - Retro Reflectors

Discussion following the use of the Masters for Reproduction as overlays should include the following: Likenesses and differences of the various reflectors; which is most effective and why.

T - Types of Reflectors - Distance Visible
U - Quick Quiz


Path of light

Mirror Reflector

MASTER FOR REPRODUCTION Ω

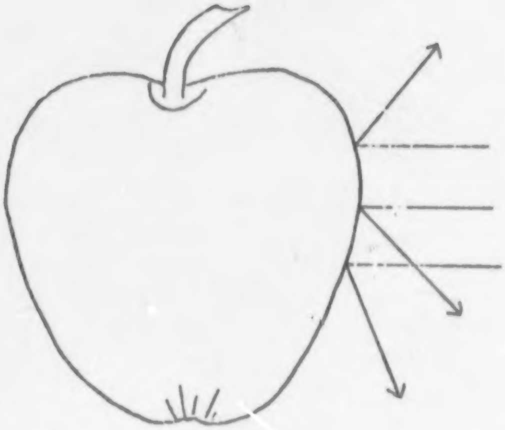
MIRROR REFLECTION

DIRECTIONS

Distribute student handout and discuss the following:

A mirror reflects light in only one direction, but that direction is away from the source of the light. Unless the source is directly in front of it, even a mirrored surface is hard to see in the dark.

R



Diffuse Reflector

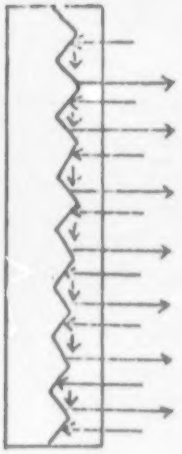
MASTER FOR REPRODUCTION R

DIFFUSE REFLECTORS

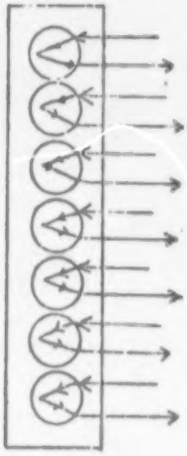
DIRECTIONS

Distribute student handout and discuss the following:

Most objects, even light colored ones, are diffuse reflectors. Light striking them is reflected in all directions. That is why they are hard to see at night. There is little light to be reflected, and what there is is scattered out in many directions and not back to the light source.



Retro-Reflector
Prisms



Retro-Reflector
Beads

MASTER FOR REPRODUCTION S

RETRO-REFLECTORS

DIRECTIONS

Distribute student handout and discuss the following:

The best reflector at night is called a retro-reflector. Light rays are focused in tiny prisms or glass beads and are reflected directly back to the source.

TYPES OF REFLECTORS - DISTANCE VISIBLE

	DIFFUSE REFLECTORS	RETRO REFLECTORS (PRISMS)	RETRO REFLECTORS (BEADS)	MIRROR		
				FLAT	CONCAVE	CONVEX
DENSITY OF LIGHT AA Batteries						
C Batteries						
D Batteries						

MASTER FOR REPRODUCTION T

TYPES OF REFLECTORS - DISTANCE VISIBLE

DIRECTIONS

In a darkened room at school or as a homework activity, have the students use the various types of reflectors and lights and record their findings on the chart.

Demonstrate the various types of reflectors with lights of different intensity, i.e., pen light vs. standard flashlight. Demonstration should show how visibility is reduced by rain, tinted glass, translucent materials, etc.

Chart the findings showing the intensity of the lights, types of reflectors - distance the reflectors can be seen - what cut down on visibility, etc.

* Variation of the activity can be gained by using flashlights requiring various amounts of batteries.

QUICK QUIZ

1. Dusk or twilight is not a dangerous time to walk or ride your bike because there is still enough light for the driver to see you. True or False?

2. Bikes don't need reflectors or lights because they usually have shiny silver spokes. True or False?

3. At night, it's a good idea to walk along the highway carrying a lighted flashlight. True or False?

4. Another good trick to make you more visible to drivers is to tie a white handkerchief around your arm. True or False?

5. If you wear white at night, a motorist is sure to see you so you don't have to take any other safety precautions. True or False?

6. It is best to wear (all light--light and dark combination-all dark) colored clothing on a snowy night.

7. Yellow is brighter than green because it (reflects--absorbs) more light.

8. When you walk at night where there are no sidewalks, you should (walk on the left side facing traffic -- the right side with the traffic).

MASTER FOR REPRODUCTION U

QUICK QUIZ

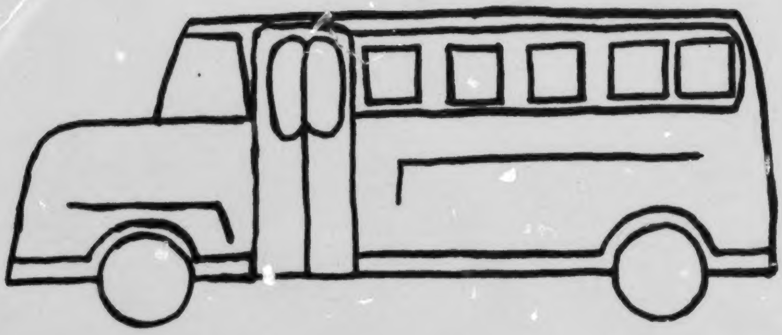
DIRECTIONS

Answers to Quiz:

1. False
2. False
3. True
4. True
5. False
6. Light and dark combination
7. Reflects
8. Walk on the left facing traffic

SCHOOL BUS SAFETY

ACTIVITIES



UNIT OBJECTIVES:

1. The students will be able to discriminate between the desired and undesired behavior presented and identify its effects upon the school bus driver and other passengers.

2. The students will apply rules for waiting, entering, riding, and exiting the school bus.

100

INTRODUCTION: Having experienced the school bus learning activities, the student will be able to demonstrate his understanding of the procedures for waiting at the bus stop, entering, riding, and exiting the school bus by stating, role playing, or acting out these procedures at the discretion of the teacher.

PROCEDURES AT THE BUS STOP:

1. Know what time the bus will be ready to pick you up.
2. Be ready on time.
3. Plan to leave home at the same time each day.
4. Be at your bus stop at least five minutes before the bus. Avoid being at the bus stop too early.
5. If there are no sidewalks and you have to walk in the street, FACE TRAFFIC and walk in a single line.
6. Stay back away from the curb at least an arm length or more.
7. At the school bus stop, don't wait or play in the street.
8. Wait until your bus comes to a FULL STOP.

1. BUS MATH

   a. The bus stops for Phil at 7:45. He left home at 7:20 to meet the bus. It usually takes him ten minutes to walk to his bus stop. Will Phil be early or late on his arrival at the bus stop? How many minutes did he have from the time he left home until the arrival of the bus? Was it more or less than the required amount that it usually takes? What time should Phil leave to get to the stop in the required ten minutes? (Answers: early; 25 minutes; more; 7:30)

b. The school bus must make 15 stops to pick up children. At each stop it usually takes four minutes for the children to board the bus. How many minutes does it take for all the children to board the bus? How many minutes would it take if the bus spent five minutes at two of the 15 stops waiting for late children?
(Answer: 60 minutes; 62 minutes)

c. If there are 15 rows of seats on the school bus, and the children sit three in a seat, how many children can sit on the bus? At times, children have to stand on a bus because of the lack of seats. If all the seats are filled and seven children have to stand, how many children are on the bus? (Answer: 45 children; 52 children)

The children can make up their own mathematical problems pertaining to the school bus and have their classmates work on the results. Divide the class into teams and have each team make up questions. One team asks a question. If a member of the opposing team guesses correctly, his team gets a point. If they do not answer correctly, the team who asked the question gets the point.

2. FIELD TRIP EXPERTS - Children can research exciting places that teachers find in the school, or they may want to use a bus to take children on a field trip. This research can be advertised and made available to teachers of all other grades. Mileage, travel routes, places to eat, places to park, and admission fees can all be included. A bulletin board in a prominent area such as the lunchroom may advertise these trips. Children can vote on where they would like to visit based on the fifth grade research of available facilities.

3. BUS TRANSPORTATION CONSULTANTS FOR THE COMMUNITY - The importance of being on time at the bus stop, using handrails upon entering, sitting quietly, and exiting properly may be themes that fifth graders sponsor on a school-wide basis. They may appear in other grades as lecturers and also go into the community to get the message of bus safety across. Students can arrange for local stores, banks, and libraries to exhibit children's art work concerning this vital issue.

4. COMMUNITY INVESTIGATORS - A committee can be sent into the community to look into the problems of traffic conditions. Suggestions for improving conditions may be forwarded to local city councils. Some of the problems needing study might include corners where lights and/or traffic police are needed, streets in need of repair to facilitate transportation, and places where traffic signs are needed. Emphasis should be on the areas surrounding the vicinity where the bus stops daily to pick up and discharge students.

5. MAN IN THE STREET INTERVIEWS - Students can tape record prepared questions to people who use the public bus system. A survey of responses may then be related to students who are interviewed who utilize the school bus. When interviewing questions are formulated, the students should use the who, why, what, where, when and how formula.

6. HALF FARES FOR SENIOR CITIZENS PROGRAM - This program could be investigated to see if it is effective. Do the people who are entitled to this special price use it? What are the positive points of the program? Note the negative points. Interview senior citizens.

INTRODUCTION: The following activities are designed to reinforce the procedures for entering the school bus.

PROCEDURES FOR ENTERING THE SCHOOL BUS:

1. Wait for the school bus doors to be opened.
2. Keep one hand free to use the handrail.
3. Allow the smaller children to be in front of the line.
4. Leave space between each child in case of:

    abrupt halt by another child
    child picking up fallen object
    child in front missing a step

5. Take seat promptly.

1. OBSERVATION ACTIVITY - Have children note the following details on the ride to or from school. A tally can be made of how many children actually saw what they were looking for. A math example can be used as to what percent of the class noted the correct answers to the questions.

    a. On what corners are street lights placed?
    b. What are the colors of the various traffic signs?
    c. How many traffic policemen are there on your route?
    d. How many school crossing guards?
    e. How many crossing guards are male? Female?
    f. How many seats are there on your bus?
    g. How many stops does your bus driver make?
    h. How many students ride your school bus?
    i. How long does the average stop take? (time)
    j. How long does the total trip take?
    k. Check the difference on good and bad weather days. Is it the same?

2. TRANSPORTATION TOY SPECIALISTS - Students can gather and report on all types of toy vehicles that they may have in their homes. They may use models or larger type replicas. A report on how the vehicles are used and the features dealing with safety can be presented. Collection can be gathered from classes on the same or lower or higher grades. If enough material is collected, an exhibit with murals and bulletin boards in a prominent area of the school would be effective.

3. TRANSPORTATION AROUND THE WORLD - How do children around the world get to school? How many countries have the concept of the school bus? The class can select a region or a specific country and research school transportation in that country. Interesting findings can be made into dramatizations or exhibits.

INTRODUCTION: The following activities are designed to reinforce the procedures for riding on the bus and are constructed to be integrated in other disciplinary areas.

PROCEDURES FOR RIDING ON THE BUS:

1. Stay quietly in your seat.
2. Save snacks and homework for later.
3. Put books or bundles where they can't slide or fall.
4. Keep your arms and legs out of the aisles.
5. Act as you would in a classroom.
6. Try not to carry big or heavy things on a bus.
7. Your head, hand, and bundles are safest inside the bus.
8. Avoid: obstructing the path, rolling objects, spilling lunches and slippage, and throwing objects.
9. Remain seated while the bus is in motion.
10. Don't talk to the driver except in emergencies.
11. No talking at all when the bus is near a railroad crossing.

1. INTERPRETING BUS LAWS - Committees of students are assigned a specific bus law, i.e., overtaking and passing school bus laws. Have them present the law to their fellow classmates by using traffic situations in which the law is involved. Any media that would help the class interpret the law should be presented, i.e., art work, tapes, routes, maps and signal lights. After the situation has been presented and the laws are interpreted, the class can illustrate their specific law and mount the law and illustration of the law on the bulletin board.

2. TRAFFIC RELATED LAWS - After the students have discussed laws pertaining to the school bus, they may become interested in other laws. Traffic related laws are found in MOTOR VEHICLE LAWS OF MARYLAND. After the research on these laws is completed, the results can be presented to the class.

3. THE BROKEN LAW - After the class has basic understanding of simple laws, the overhead projector can be used to set up situations in which someone broke the law. Children must recognize the law that is being broken and apply the proper law to the given situation. Silhoutte shapes dealing with traffic objects will enhance this activity.

4. WHO BREAKS THE LAW? A survey of the local newspaper for a two week period can be made in relation to who violates the traffic laws. One can interview the policeman in charge of traffic offenders or judges who deal with traffic violaters.

INTRODUCTION: The following activities are designed to reinforce the procedures for exiting the bus.
Note: Be sure that you use your county's specific procedure.

PROCEDURES FOR EXITING

Since procedures for exiting vary from county to county, please check the proper procedure for your school and county and explain it to your students.

INFORMATION ON LOADING AND UNLOADING SCHOOL BUSES FOR THE STATE OF MARYLAND

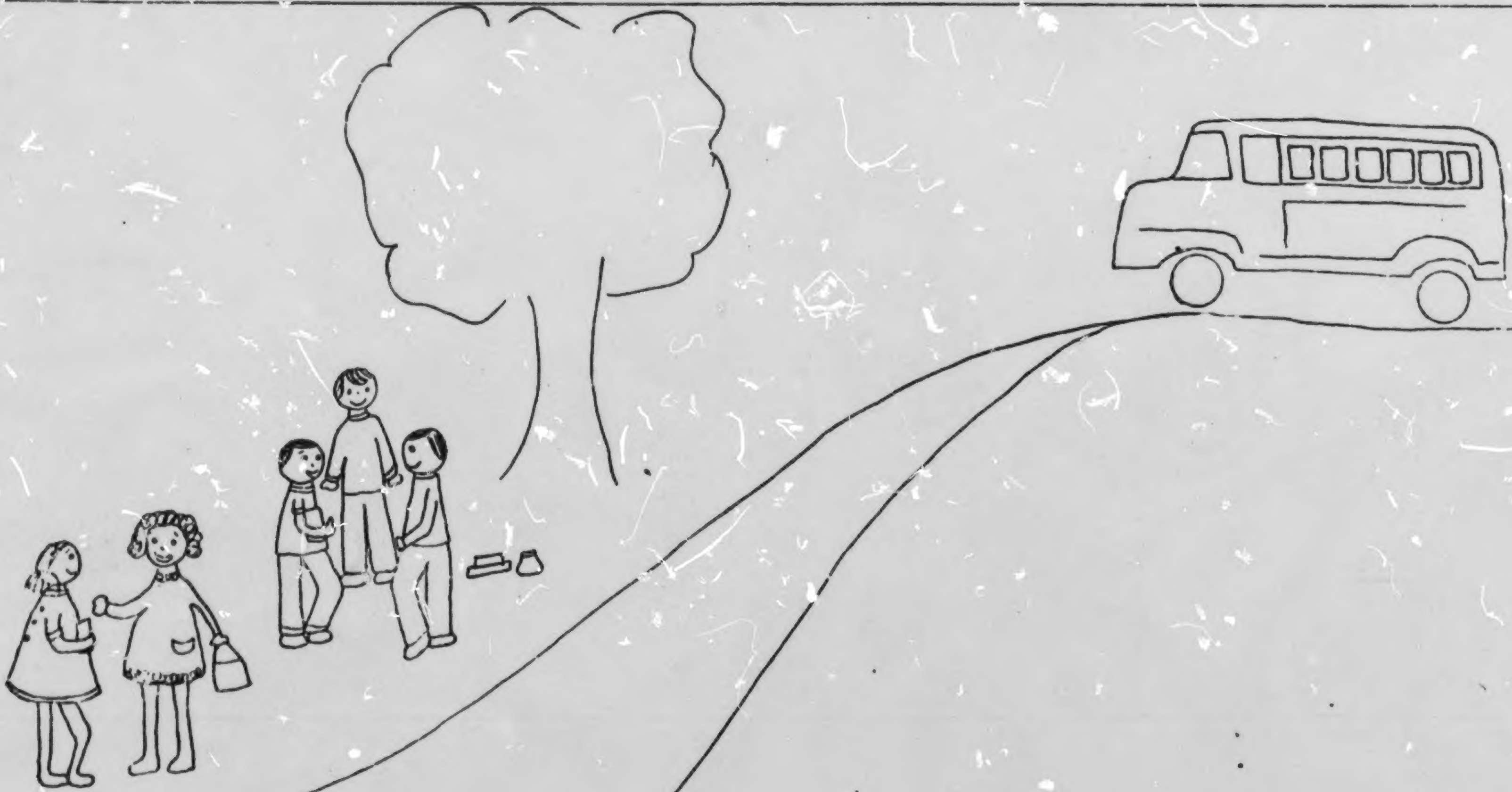
Baltimore City - The school bus pulls over to the curb at established transit bus stops, and the children exit and cross the street as pedestrians. No flashing warning lights are used, and cars can pass the school bus when it is stopped.

Baltimore County - If it is necessary for a child to cross the street before entering or after exiting the school bus, the child must make the crossing as a pedestrian. When the school bus stops to pick up children, it will flash its warning lights and cars coming from both directions must stop.

Counties other than Baltimore County - The school bus flashes warning lights as children enter and exit the school bus. When the children cross in front of the school bus, they should cross approximately five steps in front of the bus. If it is necessary for the child to cross the street, the driver will wait for the child.

* Emphasize to children that if they happen to drop any of their personal belongings near or under the bus, they should notify the driver and/or wait until the bus has gone before they attempt to retrieve that lost object.

AT THE STOP



109

110

C

A

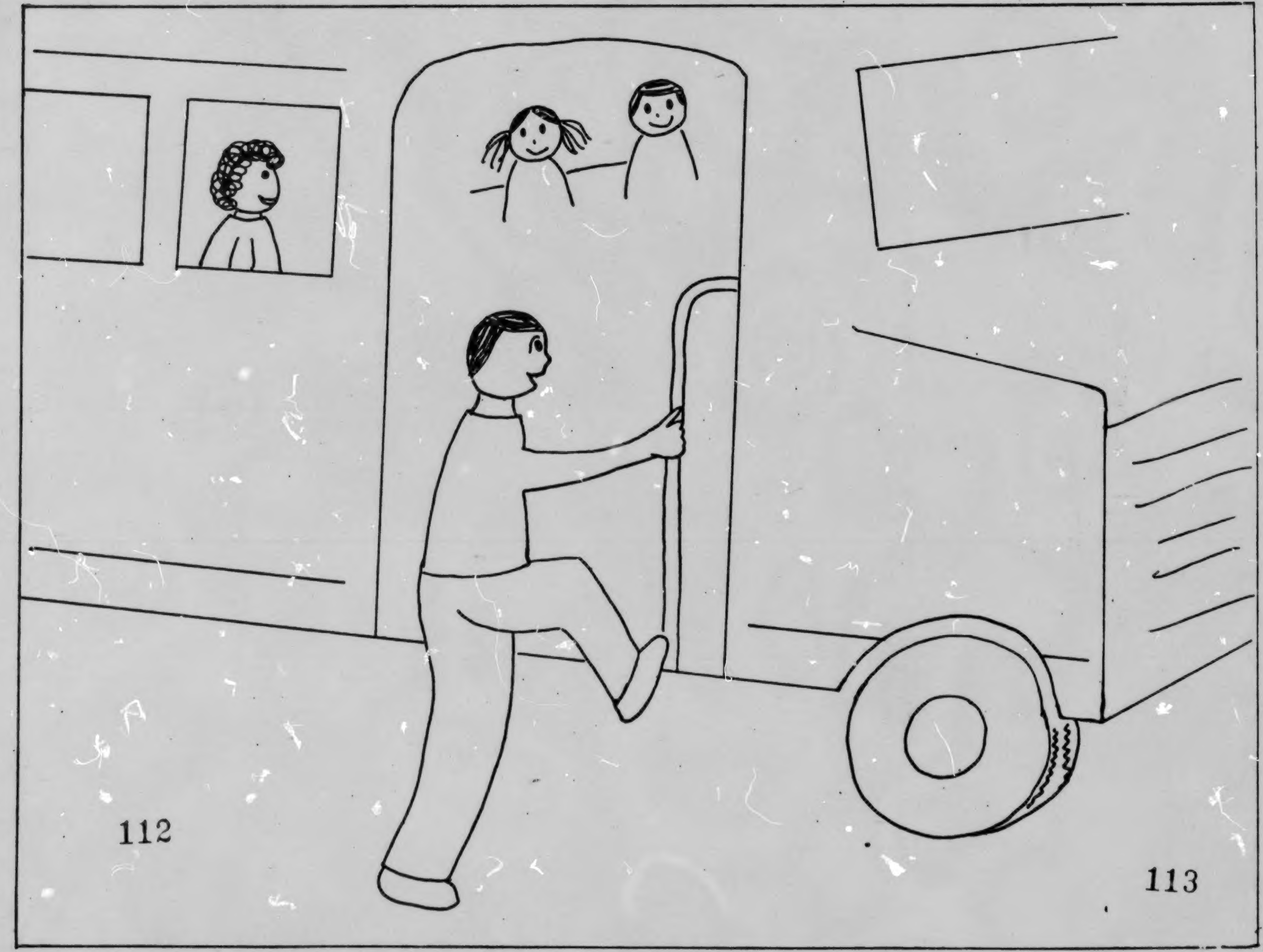
MASTER FOR REPRODUCTION A

AT THE STOP

DIRECTIONS

Use this on an overhead projector and discuss the correct procedure.

111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113

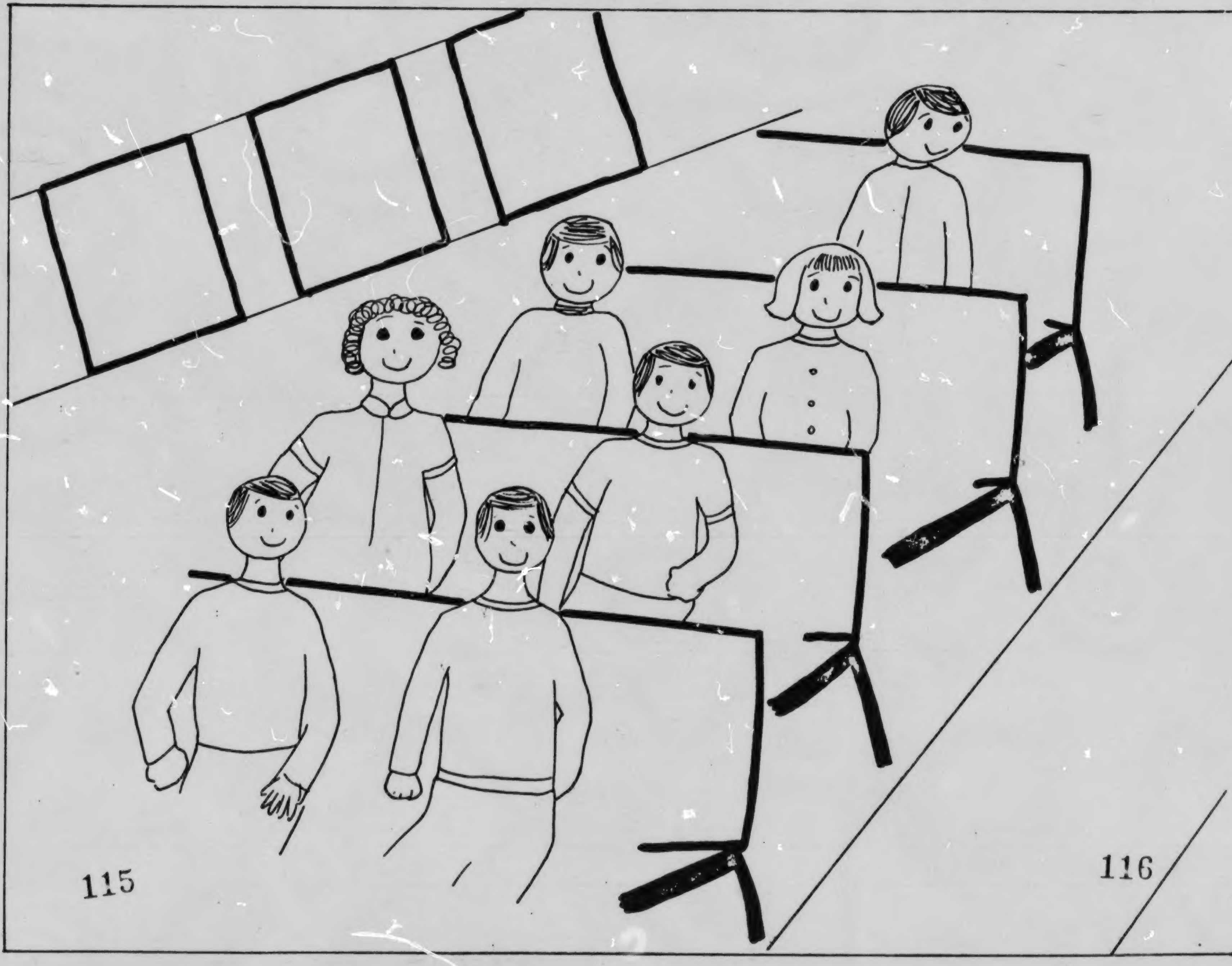
MASTER FOR REPRODUCTION B

ENTERING

DIRECTIONS

Use this on an overhead projector and discuss the correct procedure.

114



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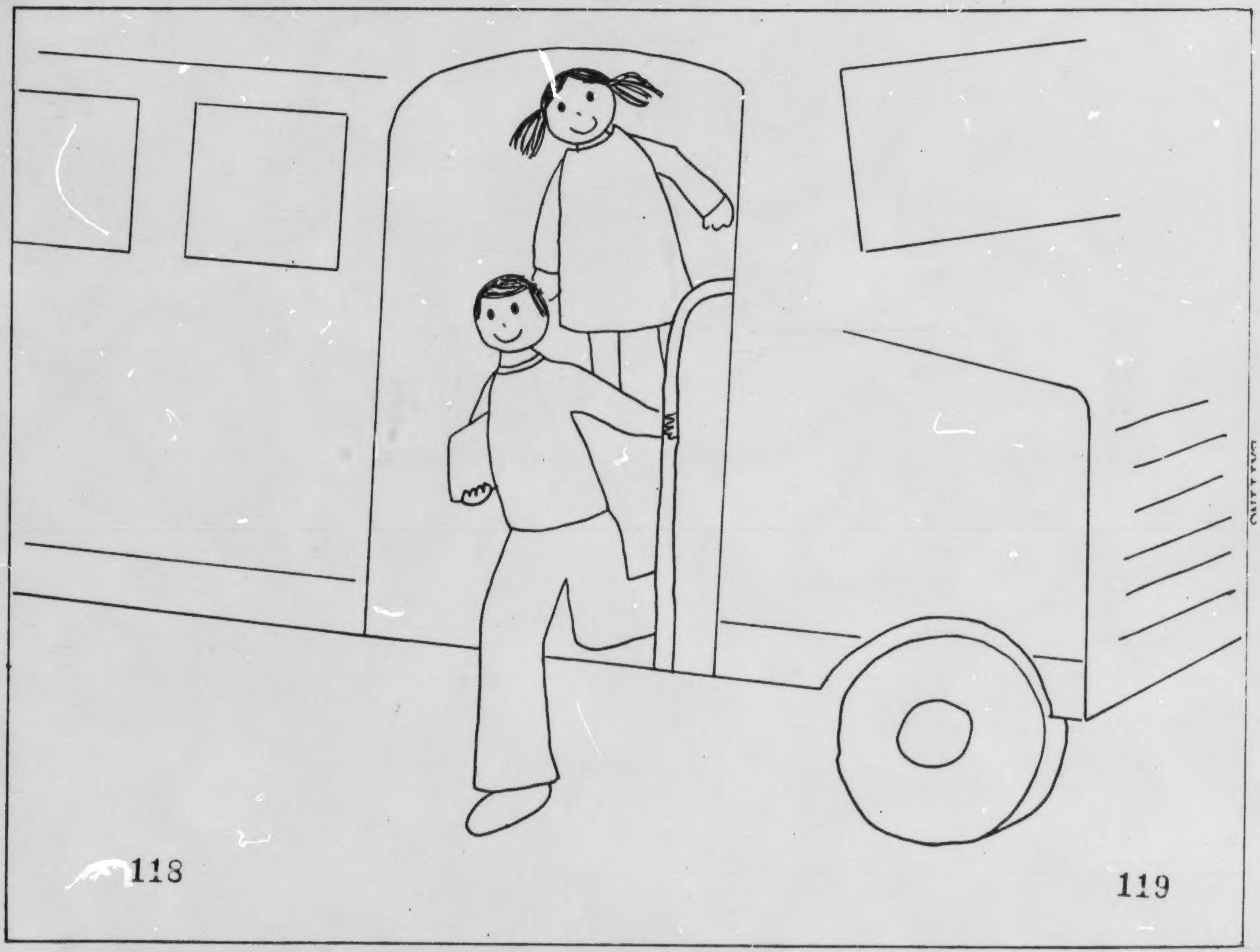
C

MASTER FOR REPRODUCTION C

RIDING

DIRECTIONS

Use this on an overhead projector and discuss the correct procedure.



MASTER FOR REPRODUCTION D

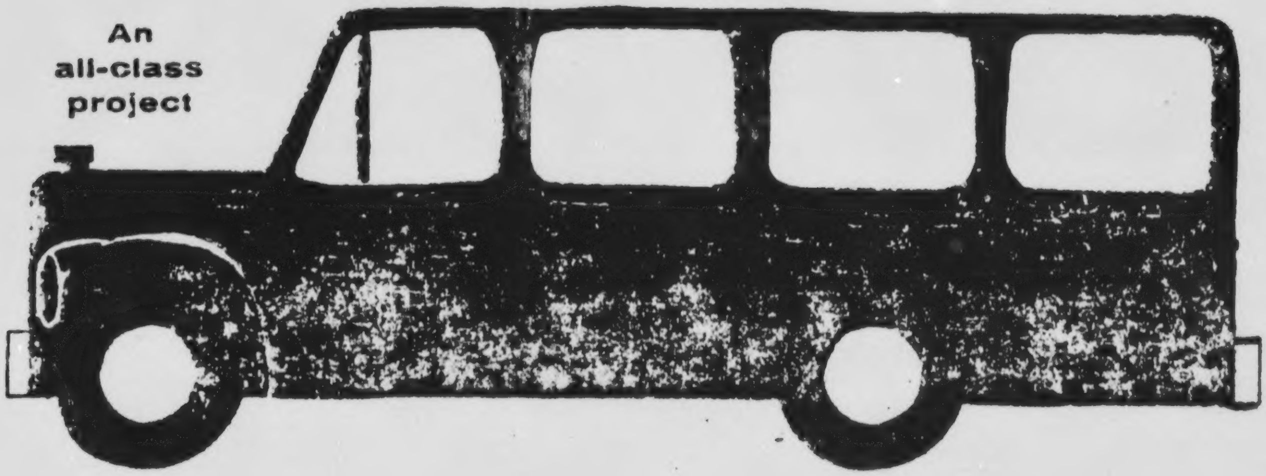
EXITING

DIRECTIONS

Use this on an overhead projector and discuss the correct procedure.

120

An
all-class
project



SCHOOL BUS CUTOUT

Do you want an imaginative and effective way to teach a school bus safety lesson? Then ask your class to make this almost-life-size school bus out of colorful posterboard, add some chairs to form the bus interior, brief the children on the basic rules for safety and let them go on from there. They can show you how to board, where to sit, stow their books and where to stand. The possibilities for acting out safe bus riding practices are endless!

To make the bus, you'll need seven sheets of posterboard, paint or felt pens for decorating, glue, staples, construction paper for the bumpers and hubcaps, and tape that is at least one-inch wide. Begin by cutting one piece of the posterboard in half to form the bus hood.

Cut windows out of four boards. Cutting out a slanted windshield and projecting bumpers is optional. Then tape the pieces together vertically. If you allow enough flexibility when you tape, the bus can later be folded and stored like a Japanese screen.

Cut two circles, each one almost as wide as one section of the bus. Tape to the posterboard in the location shown. The wheels should extend below the bottom line of the bus body so they hide the standing bus supports. Paste on hubcaps of construction paper.

Bus supports are made from two identical isosceles triangles cut from the posterboard. Each triangle should be about two-thirds the height of the bus (measuring from the bottom of the wheels), with a base about one-half the length of the triangle side. Fold the triangle in half vertically (you may have to score the board so it will fold properly). Attach one side of the folded half to the back of the bus behind the wheel. Bend the other half perpendicular to the bus body.

Add the fenders, lights, school name and any other decorations with brightly colored paint. Line up desk chairs in pairs to form the bus interior. The pupil designated as the driver should sit alone. Then, the children should learn and practice the **following** basic rules for riding the school bus safely.

1. Leave home early enough to reach your bus stop on time. Plan to be there no more than four or five minutes before the bus is scheduled to arrive.
2. As you wait for the bus, stay back from the road's edge-so you won't accidentally slip and fall onto the highway, or distract passing motorists.
3. Stay back and wait for the bus to come to a complete stop. Then board the bus without delay, holding the handrail as you go up the steps. Take a seat quietly and stay seated until the bus comes to a *full* stop.
4. If you must stand as you ride to school, face the side or the front of the bus, and hold onto the backs of two seats, gripping one with each hand.
5. Follow the instructions of your driver and the school bus patrol (if you have one) promptly.
6. Keep books and packages on your lap or place them on the floor *under* your seat. Never put anything in the aisles.
7. Remember, good conduct is the first rule of safe behavior. There's nothing wrong with quiet conversation, but loud talking and any kind of active play are out. All talking should stop when you approach a railroad crossing, so the driver can listen for trains.
8. Don't do your homework or eat your breakfast on the bus. Think what might happen if the bus went over a bump, or stopped suddenly. You might choke on a mouthful of food or jab yourself.
9. Never put your head, elbows, arms — or anything else — out the windows. The first-aid kit, flares, fuses and the emergency doors are for emergency use only.
10. Get off the bus quickly and quietly without crowding, shoving or pushing. Don't linger around bus loading zones.

BICYCLE SAFETY ACTIVITIES

UNIT OBJECTIVES:

Through a sequence of learning activities using the bicycle as the focal point, the student will acquire a basic understanding of the highway system and its inherent laws.

BICYCLE BASIC CONCEPT REVIEW

1. A bicycle is a vehicle.
2. A good driver must consider: the size of bike, the type of bike, where he rides, and his skill.
3. Since the bicycle is a vehicle, the driver must know and understand the laws and rules of the road and know local regulations.
4. For a bicyclist to be safe, he should know the right size of bicycle for him, the right seat position, handlebar position, and body position.
5. There is equipment on a bicycle that is required for safety, and there is optional equipment for decorative purposes.
6. Keeping your bicycle in good working condition with all parts functioning properly is a must for a good bicycle driver.
7. A bicyclist should be able to recognize signs and signals by their shape and color.
8. A bicyclist must be familiar with the new signs.
9. A bicyclist must be able to recognize signs and signals for railroad crossings.
10. A bicyclist must be able to identify the meaning of street markings.
11. The bicyclist must know the rules of the road if the bicycle is to be used as a vehicle in the street.

SKILLS YOU MUST HAVE TO BE A GOOD BIKE DRIVER

1. Getting on and starting up.
2. Balancing.
3. Keeping a good position.
4. Pedaling and ankling.
5. Changing balance to turn, avoiding hazards.
6. Braking to control speed.
7. Stopping when you expect to cope with an emergency.
8. Getting off your bike.

Two important things to remember:

1. Proper fit.
2. Safety check.

SAFE BICYCLE PRACTICES

1. Safety check the vehicle.
2. Choose a safe route.
3. Drive the route mentally before starting.
4. Leave in time to reach the destination safely.
5. Know how well you can drive.
6. Get ready to drive before you start.
7. Keep safe following distances.
8. Keep to the right.
9. Look ahead--stay ready for action.

BICYCLE SAFETY CHECK

1. Be sure your bike is in a safe condition for driving.
2. Be sure to have a light in working order in front, a reflector in back, and a horn or bell on your bike.
3. Keep to the right. Drive with the traffic, never against it.
4. Obey all signs, signals, and pavement markings.
5. Always use hand signals for right turn, left turn, and stop.
6. Make each turn with caution.
7. Always give the right-of-way to pedestrians.
8. Cross intersections safely.
9. Drive your bike as a traffic vehicle when you drive in a traffic area.
10. Take special precautions when you drive at night.

Child's Signature

Parent's Signature

PARENTAL GUIDE FOR PURCHASING A BICYCLE

1. Is my child old enough to understand his responsibility in traffic?
2. Will he keep a bike in good shape?
3. Will he practice a safe bicycle driver's code?
4. Will I see that my child gets proper instruction in bicycle safety before he is permitted to drive in traffic?
5. Do we live in a safe area, not heavily congested with traffic?
6. Are there safe places to ride a bike near home?
7. Does the bicycle fit the child? (Leg, thigh, and heel of the foot on the low pedal should form a straight line.)
8. Is the saddle parallel to the ground?
9. Are the handlebar grips at right angles to the handlebar stem?

NOTE: Some bicycles can be adjusted somewhat to the child.

Additional resource material can be obtained from: American Automobile Association, 1712 G Street, N. W., Washington, D. C. 20006

SAFETY INSTRUCTIONAL SYSTEM

BICYCLE SAFETY

OBJECTIVE: The students will be able to complete 70% of the activities dealing with bicycle safety with 80% accuracy.

CONCEPT TO BE DEVELOPED: Bicycles are vehicles and are subject to vehicular laws. Laws are necessary to ensure maximum efficiency in our highway transportation system.

TEACHER INFORMATION

Sidewalk (People Path) - A sidewalk is a path for people and non-vehicles to walk on at the side of a street. (A bicycle used on a sidewalk is not classified as a vehicle.) A sidewalk can be made of concrete, grass, gravel or asphalt.

Street (Car Path) - A street is an area designated for use by vehicles of various kinds and is not a play area unless blocked off and especially marked as such.

1. MASTERS FOR REPRODUCTION

A - Signal Research Sheet

B - You Be the Judge - Emergency Vehicles

C - You Be the Judge - Weaving In and Out of Traffic

D - You Be the Judge - Traveling Distance

E - Decision Making

F - Letter Magic

G - The Well Equipped Bicycle

SIGNAL RESEARCH SHEET

A SIGNAL IS DIFFERENT FROM A SIGN, BUT IT PERFORMS THE SAME JOB OF TELLING DRIVERS WHAT TO DO. TRAFFIC SIGNALS MAY BE SOUND, LIGHT, OR MOVEMENT.

1. On your way to school make a list of the types of signals that you see and where they are located. Be sure to tell if they are sound, light or movement signals.
2. After completing your signal survey. List the signals that apply directly to you as a bicycle driver.

1. SIGNALS I SEE ON MY WAY TO SCHOOL.

Type of Signal Location of Signal

2. SIGNALS I MUST OBEY AS A BIKE DRIVER.

MASTER FOR REPRODUCTION A

SIGNAL RESEARCH SHEET

DIRECTIONS

Distribute student handout. Students survey their own neighborhoods and school routes for signals. Students answer all questions. A tally of traffic signals can be made and discussion can follow.

YOU BE THE JUDGE!

Jim was on his way home from school. He had played catch with a friend and was a little late in starting home. He knew his mom would worry about him. Jim followed all the rules and signals as he drove his bicycle. Although the green light said to go, Jim heard the sound of a siren. He immediately pulled over to the side. YOU BE THE JUDGE! Did Jim do the correct thing? Why or why not? Base your answer on the bicycle laws we have studied. Write your decision in the space provided below.

MASTER FOR REPRODUCTION B

YOU BE THE JUDGE

DIRECTIONS

Distribute student handout. Children answer questions in complete sentences.

ANSWER

Yes. The law states that all emergency vehicles should be allowed to go first, when they are on call with lights flashing and siren sounding.

YOU BE THE JUDGE!

The diagram below explains the situation. Certain actions below could result in damage and/or injury.

1. What action may cause hazards?
2. What could have been done to avert those hazards?

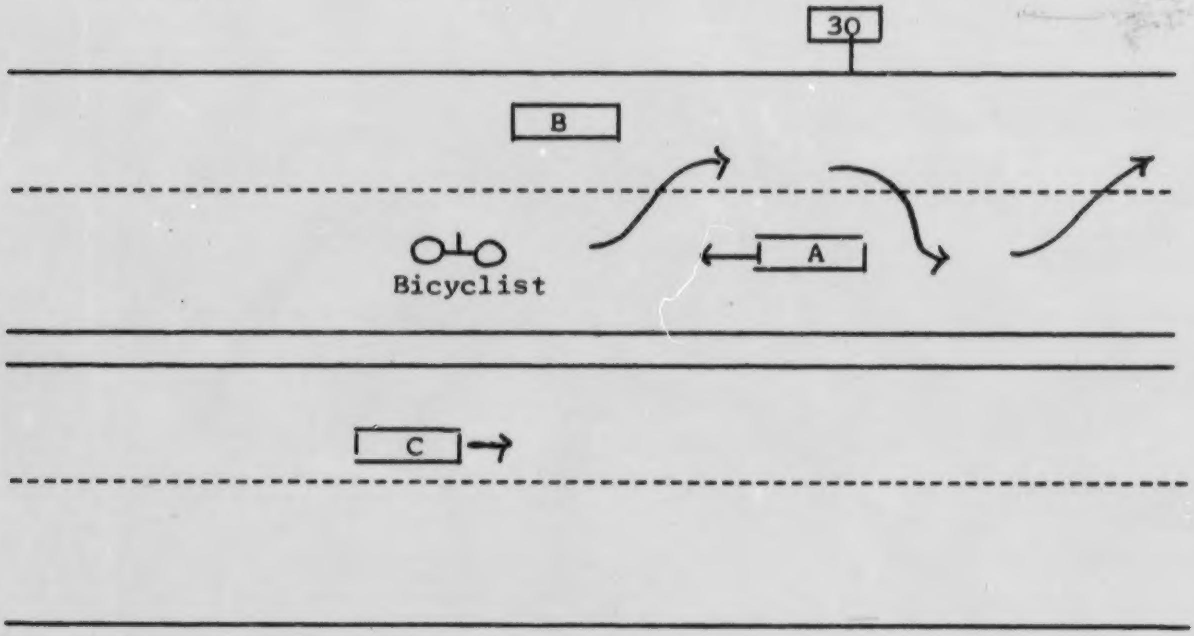
FACTS OF THE SITUATION

A. Car B is a parked car with a person sitting in the driver's seat.

B. Car A is approaching the parked car at about 30 MPH.

C. Car C is an oncoming car approaching at about 25 MPH on the opposite side of the street.

D. A boy on a bicycle is also approaching the parked car and then weaves to and fro.



WRITE YOUR CONCLUSIONS ON THE BACK OF THIS PAPER.

MASTER FOR REPRODUCTION C

YOU BE THE JUDGE

DIRECTIONS

Distribute student handout. Students study facts of the situation and diagrams. Conclusions are drawn and written in complete sentences.

ANSWER

Bicyclist is riding against traffic and is weaving in and out of traffic. Both actions are against the law.

YOU BE THE JUDGE!

DRIVER'S STATEMENT

"My brakes saved the day pure and simple. I am sure lucky that no one else was coming toward me. I was driving along, at only 30 MPH, on the wet pavement, when a child ran out in front of me. I applied the brakes hard to avoid missing him. The bicycle driver that was on my tail for the past mile bumped into my car. Luckily he wasn't hurt or my car damaged. However, I'm in the right. The bicycle driver broke an important law." YOU BE THE JUDGE. What law was the motorist talking about? Who was right, the bicycle driver or the motorist? Why? Write your decision in the space provided below. Base it on the bicycle laws we have studied.

MASTER FOR REPRODUCTION D

YOU BE THE JUDGE

DIRECTIONS

Distribute student handout. Student reads driver's statement and determines who was right. He answers questions in complete sentences.

ANSWER:

The bicyclist is wrong. Following too close in traffic is against the law.

DECISION MAKING

Below are three examples of decision making situations. When you have carefully read all three examples, make up three new situations. (Be sure to put the solution in parenthesis.)

1. Emergency Vehicles - Suppose you are walking your bicycle across an intersection and an ambulance is flashing its light. Do you know who has the right-of-way? Would you know what to do?

2. If Signals Didn't Work - Suppose you are riding with mother in the car. Suddenly her directional signals do not work. What can you suggest she do?

3. Riding with Friends - Suppose you are meeting your friends to play ball in the park. Three of you come there on your bicycles. After play, you want to go to the candy store for sodas. You have a lot to talk about and all three of you ride along beside each other. What rule are you breaking?

MASTER FOR REPRODUCTION E

DECISION MAKING

DIRECTIONS

Distribute student handout. Students read the three decision-making situations and answer the questions in complete sentences.

ANSWERS

1. The emergency vehicle always has the right-of-way.
2. Use hand signals which are the same for automobiles and bicycles.
3. Always ride single file.

LETTER MAGIC

Find a word beginning with each letter in each category and fill in the blank space.

	Purpose of ride	Where are you riding to?	What will you do when you arrive there?
B			Buy
I			
C			
Y			
C		Coast	
L			
E	Excitement		

MASTER FOR REPRODUCTION F

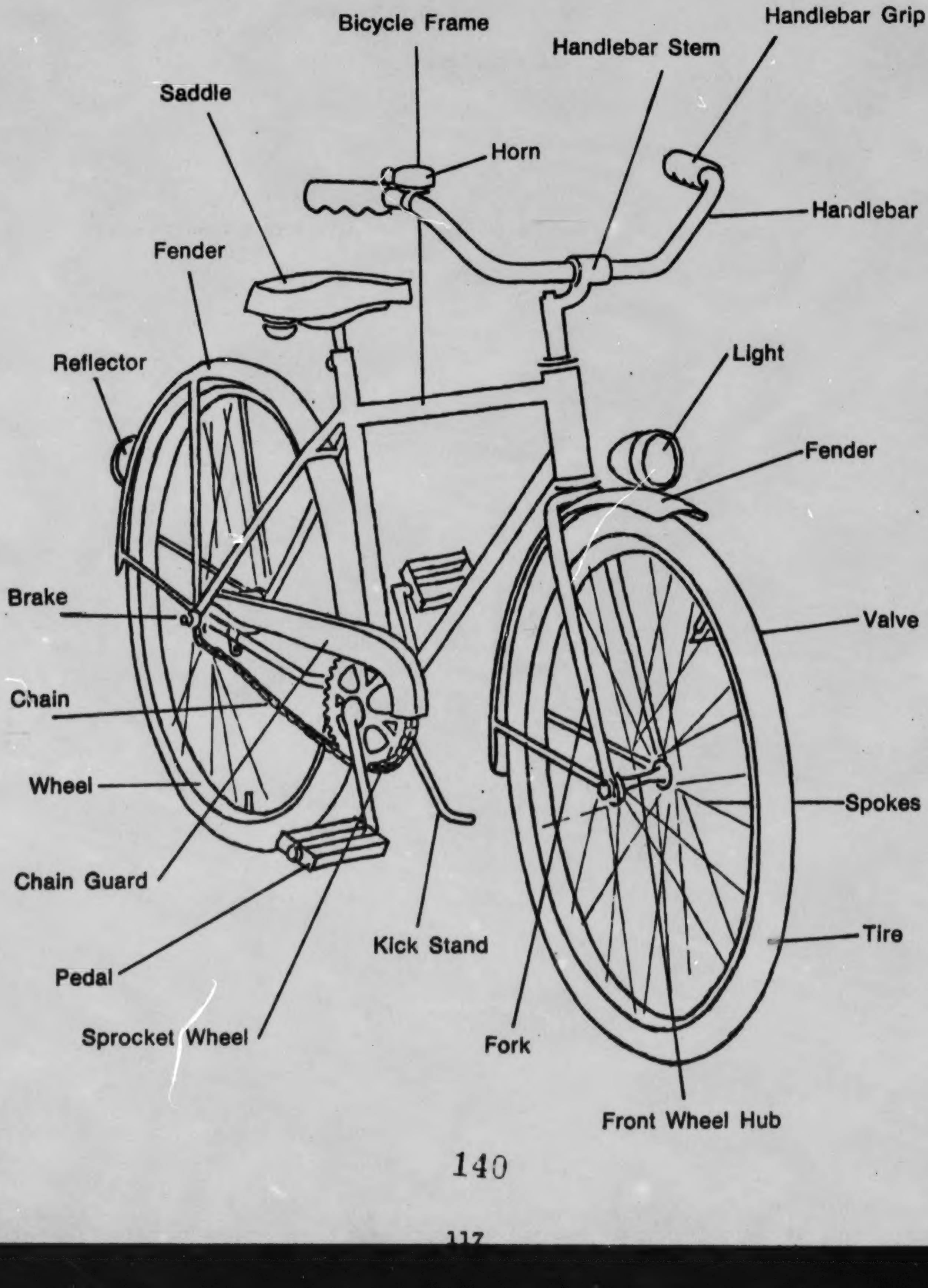
LETTER MAGIC

DIRECTIONS

Answer Sheet

Find a word beginning with each letter in each category and fill in the blank space. Accept any reasonable answer.

	Purpose of ride	Where are you riding to?	What will you do When you arrive?
B	business	border	buy
I	interest	India	investigate
C	chasing	cliffs	call
Y	yourself	Yosemite	yell
C	coasting	coast	complain
L	love	lake	look
E	excitement	England	enjoy


Bicycle Frame
Handlebar Grip
Handlebar Stem
Saddle
Horn
Handlebar
Fender
Reflector
Light
Fender
Brake
Valve
Chain
Wheel
Spokes
Chain Guard
Tire
Kick Stand
Pedal
Sprocket Wheel
Fork
Front Wheel Hub

MASTER FOR REPRODUCTION G

THE WELL-EQUIPPED BICYCLE

DIRECTIONS

Distribute student handout sheet for discussion purposes.

141

AUTO PASSENGER

SAFETY ACTIVITIES

UNIT OBJECTIVES:

After experiencing several of the following activities (to be determined by the teacher) the student will be able to:

1. Compare or contrast the advantages and disadvantages of using seat belts through a series of activities concerning seat belt usage.
2. Demonstrate through self initiated activities the recommended procedures for entering and exiting from an automobile.
3. Compute miles per gallon of gasoline in specific situations.
4. Student will be able to demonstrate to the teachers a measurable competency in map skills.

OBJECTIVES:

1. The student will be able to analyze several situations involving entering, riding, and exiting procedures and decide upon the proper course of action.

2. The student will be able to state at least two advantages of wearing seat belts and statistically demonstrate the validity of his statement(s).

3. The student will be able to state the advantages and disadvantages of head supports in the automobile.

1. MASTERS FOR REPRODUCTION

   A - The Decision is Yours

   B - The Decision is Yours

   C - The Decision is Yours

   D - The Decision is Yours

THE DECISION IS YOURS

PROCEDURES FOR ENTERING A CAR

The following is a list of procedures for entering a car. In the blank spaces after each procedure, write why you think it is necessary to follow these procedures. What might happen if you did not follow these procedures?

1. Open the door on the curb side.

2. Close the door securely.

3. Lock the door.

4. Fasten the seat belt and shoulder harness if appropriate.

MASTER FOR REPRODUCTION A

THE DECISION IS YOURS

DIRECTIONS

Distribute student handout. Ask students to read situation presented and write answers in complete sentences. Answers should be based on rules for Entering Car.

Answers given should include:

1. Enter the car on the curb side because it is safer for the individual than opening a car door out into a lane of traffic.
2. Close the door securely; otherwise it will not lock securely.
3. Lock the door to prevent the door from flying open in case of an accident.
4. Fasten the seat belt securely. A loosely fastened seat belt can allow the belt to slip up and cause injuries in the abdominal area.

Accept any other reasonable answers.

THE DECISION IS YOURS

Dale's mother always picked up Dale and his friend Ricky after their scout meetings. Ricky reached the car first and entered the car on the curb side, closed and locked the door and fastened the seat belt. Dale was late arriving at the car and his mother was in a hurry. "Go around to the other side," his mother called. Dale dashed around to the other side of the car. As he did so, a passing motorist angrily blew his horn as he swerved to avoid hitting Dale. Who was at fault and why?

MASTER FOR REPRODUCTION B

THE DECISION IS YOURS

DIRECTIONS

Distribute student handout. Ask students to read situation presented and write answers in complete sentences. Answers should be based on rules for Entering a Car.

Answers given should include the following: Dale and his mother were at fault. Always enter a car on the curb side.

THE DECISION IS YOURS

Glenn, Alan and Tracy were returning home from a school program. Glenn's father had parked his car and was waiting for the children. As they reached the car, Glenn opened the front door for Tracy. Alan opened the back door, sat down and started to close the door. "Hey! Wait for me," shouted Glenn. "Oh, go around," said Alan. "No, Alan, scoot over!" said Glenn. How do you explain Glenn's attitude. Is he right or wrong? Explain why.

MASTER FOR REPRODUCTION C

THE DECISION IS YOURS

DIRECTIONS

Distribute student handout. Ask students to read the situation presented and write answers in complete sentences. Answers should be based on rules for Entering a Car.

Answers given should include the following: Always enter a car on curb side.

149

THE DECISION IS YOURS

Susan's father drives her to school each day. She always sits in front beside her father. Today as they approached the school, a small child dashed across the street directly in front of the car. Susan's father slammed on the brakes to avoid striking the child. No one was injured except Susan who had a real bump on her forehead. Boy, did she have a headache! She must have forgotten something. What do you think it was?

MASTER FOR REPRODUCTION D

THE DECISION IS YOURS

DIRECTIONS

Distribute student handout. Ask students to read the situation presented and answer questions in complete sentences. Answers should be based on rules for Entering a Car.

Answers given should include the following: Susan did not have her shoulder harness fastened.

151

SAFETY BELT SURVEY ACTIVITY

1. Have the students do a neighborhood survey on use of and attitudes toward safety belts. The teacher may use the form provided (Master for Reproduction E) or may devise one of her own. Students should interview no less than ten people and in several age groups.

2. Tabulation of the Survey

   On the form provided (Master for Reproduction F) have each student compile the results of his/her survey.

3. Language Arts - Written Report of Survey

   Have the children write a report of their seat belt survey including such things as:

   a) What age group uses seat belts most, least?

   b) Give the total number of people surveyed.

   c) Do more men or women use seat belts?

   d) Does the number of years of driving have any bearing on whether or not people use seat belts?

   e) Do people who have had driver education courses use seat belts more or less?

4. Discussion Groups

   On the chalkboard, list the reasons given in the survey for and against the use of seat belts.

   Assign students, or have them select the "side" they wish to represent in an open discussion of the use or non-use of seat belts. Students should be encouraged to do research to support their views. Information is available in the School Safety Magazine as well as from the Fact Book,

   U. S. Department of Transportation
   National Highways Traffic Safety Administration
   Washington, D. C. 20590

MASTERS FOR REPRODUCTION - MATH PROBLEMS

M _ Mileage and Travel Time

N _ Speed Limits and Average Miles per Hour

E

SEAT BELT SURVEY FORM

1. Age __________

2. Sex: Male _____ Female _____

3. Do you drive a car? _______

4. How long have you been driving? ___________

5. When you drive do you wear a seat belt?

   always ______ sometimes ______ never ______

6. When you are a passenger in an automobile, do you wear a seat belt?

   always ______ sometimes ______ never ______

7. Have you ever had a Driver Education course?

8. Why do you wear or not wear a seat belt?

   ____

   ____

   ____

MASTER FOR REPRODUCTION E

SEAT BELT SURVEY FORM

DIRECTIONS

Have the students do a neighborhood survey on use of and attitudes toward safety belts.

F

SEAT BELT SURVEY TABULATION SHEET

AGE	ALWAYS WEAR	SOMETIMES WEAR	NEVER WEAR	DRIVER ED. YES	DRIVER ED. NO	PASSENGER	DRIVE
12-15							
16-20							
21-25							
26-30							
31-35							
36-40							
41-45							
45&UP							
Men							
Women							
Years Driving							
1-5							
6-10							
11-15							
16-20							
21-25							
25 or over							

LIST REASONS FOR WEARING SEAT BELTS:

LIST REASONS FOR NOT WEARING SEAT BELTS:

MASTER FOR REPRODUCTION F

SEAT BELT SURVEY TABULATION FORM

DIRECTIONS

On the form provided, have the students compile the results of their survey.

1. LETTER WRITING

Ask students to write letters to parents, grandparents, local newspapers, radio or television stations telling why they feel it is important to wear seat belts and recommending their use.

2. REVIEW OF HEAD SUPPORT SYSTEMS

Have the students describe the design of the two different types of head supports and tell why they are needed.

In what type of collisions are they of the greatest benefit? (Rear end)

3. CREATIVE WRITING - HEAD SUPPORT SYSTEMS

Have the students write a paragraph expressing their personal opinion on a negative statement about head supports. (Master for Reproduction G.)

Safety Feature Word Hunt (Master for Reproduction L), is an activity designed to give students practice in visual search for given words. (Answer key is included.)

4. MASTERS FOR REPRODUCTION

G - Head Support Systems

H - The Decision is Yours

I - The Decision is Yours

J - The Decision is Yours

K - The Decision is Yours

L - Safety Feature Word Hunt

HEAD SUPPORT SYSTEMS

One of the major objections to head support systems is that they block the view of the driver as well as the view of the passengers in the back seat. Write your response to this argument.

MASTER FOR REPRODUCTION G

CREATIVE WRITING - HEAD SUPPORT SYSTEMS

DIRECTIONS

Have students write a paragraph explaining how they would respond if they wanted to use the head support and others in the car gave them this argument.

THE DECISION IS YOURS

PROCEDURES FOR EXITING FROM A CAR

The following is a set of procedures for exiting from a car. In the blank space after each procedure, write why you think it is necessary to follow these procedures. What might happen if you did not follow these procedures?

When possible, always exit on the curb side of the car. If this is not practical, the following procedure should be followed.

1. Check street traffic from behind to side.

2. Open door slightly (6-8 inches) and check again.

3. When traffic is clear, open the door far enough to exit to the rear, staying close to the side of the car and proceeding to the sidewalk from the rear of the car.

MASTER FOR REPRODUCTION H

THE DECISION IS YOURS

DIRECTIONS

Distribute student handout. Ask students to read the situation presented and write answers in complete sentences. Answers should be based on rules for Exiting from a Car.

Answers given should include the following:

1. Exit on the curb side of the car to avoid involvement in street traffic.

2. Check street traffic to avoid opening the door into a lane of oncoming traffic.

3. Open door slightly to check traffic; check again. You may have missed something the first time.

4. If traffic is clear, open the door far enough to exit from the car. Walk to the back of the car (so you will be facing any approaching traffic) and proceed to the sidewalk from behind your car.

THE DECISION IS YOURS

John and Mike rode to school daily with John's father. They always rode in the back seat of the car. The boys were in a rush on this particular morning. As the car came to a stop in front of the school both boys unfastened their seat belts, opened their doors and jumped from the car. Mike rushed toward the school. As he did so, he heard John cry out for help! Luckily for John, he was only scraped and bruised but the back door on John's side was a mangled mess. The passing motorist had struck the door. Who was at fault? Why?

MASTER FOR REPRODUCTION I

THE DECISION IS YOURS

DIRECTIONS

Distribute student handout. Ask students to read the situation presented. Ask students to write answers in **complete sentences.** Answers should be based on rules for Exiting from a Car.

Answers given should include the following: John was at fault for not following the procedures for exiting from a car on the street side and/or exiting from a car on the curb side.

THE DECISION IS YOURS

Sandy, Linda and Janet were in a hurry to get to school. They were in the evening P.T.A. Program. They had their costumes carefully folded in boxes. As the car came to a halt in front of the school, Linda and Janet got out of the car on the curb side. Sandy checked the street behind her. There were no cars, so she carefully opened the door and stepped out into the street. Now to get her costume! It was such a large box! "How will I ever get that out of the car on this side," she thought. Sandy had two alternatives. What are they? Which would you have chosen and why?

MASTER FOR REPRODUCTION J

THE DECISION IS YOURS

DIRECTIONS

Distribute student handout. Ask students to read the situation presented and write answers in complete sentences. Answers should be based on rules for Exiting from a Car.

Answers given should include the following: (1) exit from the car on the curb side; or (2) follow the procedures for exiting from a car on the street side.

K

THE DECISION IS YOURS

Today was the day that Sandy was to present her project for her Social Living class. "There's no way I can get all of this material to school on the bus. I'll just have to have my mother drive me to school," she thought to herself. After talking with her mother, she quickly loaded her materials into the car. Her mother had to be at her job on time, so she knew she would have to hurry. When they arrived at school, Sandy realized she had put her things on the wrong side of the car. When she got out of the front seat, there were many things that had slipped far out of her reach on the back seat. "I'll get out and get them for you, Sandy," said her mother. "Oh, no Mother, it really isn't safe for you to get out on that side. It won't take but a second. I'll crawl in and pick them up," said Sandy. Her mother was so surprised. Sandy had always appreciated her help in the past. "I wonder if there's something there that Sandy doesn't want me to see," thought her mother. What do you think? Was Sandy hiding something or did she have a good reason for insisting on picking up her own materials? Which could it be? Write why you think as you do.

MASTER FOR REPRODUCTION K

THE DECISION IS YOURS

DIRECTIONS

Distribute student handout. Ask students to read the situation presented. Have the students write answers in complete sentences. Answers should be based on rules for Exiting a Car.

Answers given should include the following: Sandy knew she should exit a car on the curb side if at all possible and she knew it was dangerous for her mother to get out in the street to get the materials for her.

L

SAFETY FEATURE WORD HUNT

D	P	H	E	A	D	S	U	P	P	O	R	T	P	W
G	T	U	S	U	W	Y	C	F	A	X	I	O	G	L
B	V	L	W	Z	P	Q	E	L	T	M	K	W	S	R
F	X	R	P	L	N	R	T	A	H	J	N	C	E	A
W	Y	A	R	K	H	I	Q	S	P	S	F	P	A	T
P	E	D	E	C	X	R	L	H	E	U	I	T	T	M
R	L	H	P	A	Q	Z	H	E	P	W	L	E	B	G
Q	C	I	M	I	R	R	O	R	D	Q	A	S	E	L
V	K	P	U	S	C	V	W	L	T	Y	N	S	L	P
X	M	H	B	R	A	K	E	I	E	R	G	E	T	Z
A	S	L	C	Q	W	I	U	G	O	T	I	N	A	D
T	W	Q	P	S	H	J	E	H	K	C	S	R	G	J
O	J	D	K	S	Q	Y	U	T	U	R	N	A	D	F
L	R	Z	D	E	F	R	O	S	T	E	R	H	S	T
C	Q	N	O	W	S	H	O	U	L	D	E	R	A	C
S	I	F	H	G	Y	T	I	N	V	I	S	O	R	S
W	P	A	P	E	Q	P	S	K	L	M	A	D	T	L

Windshield Wiper
Defroster
Brake Lights
Turn Signals
Flasher Lights
Shoulder Harness
Horn
Bumper
Seat Belt
Head Support
Sun Visors
Mirrors

SAFETY FEATURE WORD HUNT

(Answer Key)

		H	E	A	D	S	U	P	P	O	R	T		
								F						
								L					S	R
								A					E	
			R					S				P	A	
			E					H			I		T	
			P					E		W	L		B	
			M	I	R	R	O	R	D		A	S	E	
			U					L			N	S	L	
			B	R	A	K	E	I		R	G	E	T	
						I		G	O		I	N		
					H			H			S	R		
				S				T	U	R	N	A		
			D	E	F	R	O	S	T	E	R	H		
		N			S	H	O	U	L	D	E	R		
	I							N	V	I	S	O	R	S
W														

Windshield Wiper
Defroster
Brake Lights
Turn Signals
Flasher Lights
Shoulder Harness

Horn
Bumper
Seat Belt
Head Support
Sun Visors
Mirrors

DIRECTIONS

All twelve safety feature words are written in this word puzzle. Circle the words, using a different color crayon for each word. Words may be written horizontally, frontward or backward or vertically, up or down.

OBJECTIVE: Having reviewed a series of training activities, the students will be able to:

1. Locate cities and towns using a map index.
2. Calculate mileage and travel time using a map or given situations.
3. Calculate miles per gallon of gasoline.
4. Compute reaction time and stopping distance from presented situations.

MAP READING

MAP INDEX BINGO

This game is designed to give the students practice in using the map index to locate cities and towns.

Each student will make a list of 5 towns or cities from each group below. List the name of the town and the letter and number listed for locating it, i.e., Annapolis, F-18.

Group 1 - Towns or Cities listed under A, B & C

Group 2 - Towns or Cities listed under D, E, F, G & H

Group 3 - Towns or Cities listed under I, J, K & L

Group 4 - Towns or Cities listed under M, N, O, P, Q, R & S

Group 5 - Towns or Cities listed under T, U, V, W, X, Y & Z

Students should then fill in the letter, number combinations from each list, placing the letter number combinations under the corresponding headings on the bingo card. Remember, the center square is free!

Collect the lists from each student to compile the Master List.

DIRECTIONS FOR INDEX BINGO

To play the game one student calls the name of a city or town, players check their state map index, find the name of the town, and note the letter number combination following the town name. Player then checks his bingo card for the number letter combination on his card, marking it with a bean if he has the corresponding combination. The first player to"bingo"wins the game. Then he becomes the caller. The caller in turn takes the player's place in the game.

Sample Card:

I	N	D	E	X
B	I	N	G	O
A-C	D-H	I-L	M-S	T-Z

MASTERS FOR REPRODUCTION

M - Mileage and Travel Time

M - Speed Limits and Average Miles Per Hour

MILEAGE AND TRAVEL TIME

1. In an auto trip the Taylor family traveled 300 miles in 5 hours. The Taylors averaged _____ miles per hour.

2. A car travels 90 miles in two hours. At this rate it would travel _____ miles in six hours.

3. Carol's family left on a 324 mile trip. On the first day they completed 2/3 of a trip. How many miles did they travel on the first day? _____ They drove for 4 hours. They averaged ______ miles per hour.

4. Jean's father plans a trip of 1,328 miles. He plans to travel four days. If he travels the same distance each day, how far must he travel each day? ______

5. Mr. Haynes is taking a 450 mile trip. During the first 3 hours his average rate of travel was 42 miles per hour. After 3 hours, how much further does Mr. Haynes have to travel? _____

6. The Smiths went to visit relatives that lived 1,500 miles away. They drove 480 miles in 8 hours the first day. The second day they drove 517 miles in 10 hours. How far did they have to drive the third day? _____ If they arrived at their relatives home at 6:00 p.m. and averaged 60 miles an hour, what time would they have to leave the motel in the morning? _____

7. A bus traveled 294 miles in 7 hours. The average rate of speed was _____ miles per hour.

8. At an average rate of speed of 65 miles an hour, how long will it take a train to travel 1,040 miles? _____

MASTER FOR REPRODUCTION M

MILEAGE AND TRAVEL TIME

DIRECTIONS

Master for Reproduction M may be used as a student handout. Have the students compute the problems and fill the answers in the blanks.

(ANSWERS)

1. 60
2. 260
3. 216, 54 mph
4. 332
5. 342
6. 503, about 9:45
7. 42
8. 16 hours

N

SPEED LIMITS AND AVERAGE MILES PER HOUR

1. The Smith family from Rockville, Maryland wanted to drive to Hancock, Maryland and home again. The speed limit on Interstate 70 is posted at 70 miles per hour. It is 85 miles from Rockville to Hancock. They left Rockville at 7:00 a.m., stopped in Frederick 45 minutes for breakfast, arriving in Hancock at 9:15. How many miles per hour did they average? Did they travel over or under the speed limit?

GASOLINE AND MILES PER GALLON

2. Mr. Smith had filled the car with gasoline in Rockville before he left. They returned home the same afternoon. Mr. Smith wanted to check his car to see how many miles per gallon his car traveled. He filled the car with gas. It took 12.6 gallons of gas to fill the car. How many miles per gallon did Mr. Smith's car travel? The gasoline cost $.42 per gallon. How much money did Mr. Smith spend on gasoline?

MASTER FOR REPRODUCTION N

SPEED LIMITS AND AVERAGE MILES PER HOUR

DIRECTIONS

Have the students compute the answers for the problems.

1. $\frac{\text{distance}}{\text{time}}$ = mph

9:15 - left
7:00 - arrived

2:15
:45 - lunch

1:30 - driving time

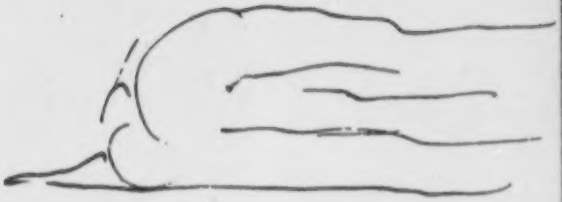
56.5 = 57 mph
1.5) 850.0
75
100
90
100
75
25

2. 85
+85
170 miles travelled

13.4 = 13
12.6) 1700.0
126
440
378
620 13 miles per gallon
504
116

12.6 gallons
$ X .42
252
504
5.292 $5.29

SCHOOL ENVIRONMENTAL SAFETY ACTIVITIES



UNIT OBJECTIVES:

1. The student will acquire the knowledge to effectively cope with potential hazards within the school environment.
2. The student will be able to follow recommended procedures when confronted with simulated or real disaster warnings.

OBJECTIVE: The students will be able to demonstrate their knowledge of Fire Drill Procedures as measured by their performance during an actual fire drill.

CONCEPTS TO BE DEVELOPED:

1. Fire Drill Procedures are designed to get people out of a building as quickly as possible.
2. Calm, orderly behavior is essential in exiting from a school building during a fire drill.

TEACHER INFORMATION

Fire drill evacuation procedures vary from county to county as well as from one school to another within a county. Teachers should have a list of procedures for fire drills and post it in the classroom. Each teacher should know the specific procedures that pertain to her classroom, i.e.:

1. What route to take during a fire drill.
2. How to line the children up.
3. Where the children evacuate to.

The procedure should be practiced before the first scheduled fire drill for the year, and practice should continue throughout the school year.

INTRODUCING THE FIRE DRILL PROCEDURE

During the first few days of school, the teacher should introduce the concept of the FIRE DRILL. Discussion should include:

1. Why an orderly plan of exit is necessary.
2. Why schools have fire drills and what a fire drill is.
3. What might happen if the school did not have a fire drill.

Emphasis should be on purpose and procedures. Rules and procedures should be listed in sequential order. For non-readers pictures should accompany the procedures.

1. STOP WHAT YOU ARE DOING AND PUT EVERYTHING DOWN.
2. NO MATTER WHAT THE WEATHER IS LIKE, DO NOT GO FOR YOUR CLOTHING.
3. LINE UP IN AN ORDERLY MANNER.
4. LAST STUDENT IN LINE CLOSES THE DOOR.
5. WALK OUT IN A STRAIGHT LINE WITHOUT TALKING.
6. WALK TO ASSIGNED EXIT.
7. STAY BEHIND THE PERSON THAT WAS IN FRONT OF YOU.
8. REMAIN IN A STRAIGHT LINE WITHOUT TALKING UNTIL THE ALL CLEAR SIGNAL IS HEARD AND TEACHER GIVES YOU PERMISSION TO RE-ENTER THE BUILDING.

EMERGENCY CONDUCT PROCEDURES

Explain why it is important to remain calm during an emergency and to know what to do to remain safe.

a) Keep moving - (no stopping to go back for clothes, books, equipment).

b) Clear out - (so you won't block exits or streets from fire-fighting equipment).

c) Stay with your group (so your teacher knows you are safe).

1. TO TELL A STORY

Have a child or a group of children tell a story about a fire drill experience. The story may be told through a:

- Sequence of pictures
- Pantomime
- Dance
- Tableau
- Dramatization
- Choral Speech

2. STORYBOARD FIRE MURAL

Have the class construct a detailed mural of the story of a fire. Details to be included would be the fire's origin, possible escape attempts, rescue, and return to normalcy. Emphasis should be on what to do once fire is noticed. A tape recorded verbal presentation would enhance the story of the mural.

3. HUNTING WITH A CAMERA

Ask the students to research the environment that he finds himself in most often, and have him take pictures of three hazardous conditions. Ask the children to share experiences and to try to do something to erase obvious fire hazards.

4. MASTER FOR REPRODUCTION

A - Who Knows What About Fire?

WHO KNOWS WHAT ABOUT FIRE ?

ANSWER THE FOLLOWING FIRE QUIZ QUESTIONS.

1. If you discover a fire in your room, you should try to put it out. TRUE or FALSE.

2. Sleep with your bedroom door ______.

3. Costumes for parties, plays and Halloween should always be made of ___________ material.

4. Be sure to leave appliances plugged in while they are not in use. TRUE or FALSE.

5. You should know at least ____ escape routes from both your home and your school.

6. Never carry matches loose in your pocket. TRUE or FALSE.

7. If your clothes catch on fire ____________ will make the flames spread faster.

8. If you suspect fire, feel the door _____ and the _______ of the door. If they feel warm, don't open the door.

9. If you should have to travel through smoke to get out of a building, keep a __________ over your _______ and _______ and stay near the floor.

10. Never return to get something from a building that's on fire. TRUE or FALSE.

11. The effects of smoke kill more people in fires that burns do. TRUE or FALSE.

12. Close the cover of a matchbox;then strike the match (away from, toward) yourself.

13. If you want to report a fire and don't know the fire department's number, what can you do?____

14. If your clothes should catch on fire outdoors, drop to the ______ and _________.

15. One reason for not going near a fire is that there is always the danger of an _______________.

180

MASTER FOR REPRODUCTION A

WHO KNOWS WHAT ABOUT FIRE

DIRECTIONS

Students answer the fire quiz questions. Discussion of why the answer is correct follows.

ANSWERS

1. false
2. closed
3. flame proof
4. false
5. two
6. true
7. running
8. knob, edges
9. handkerchief, nose, mouth
10. true
11. true
12. away from
13. dial O to reach the operator
14. ground, roll
15. explosion

TEACHER INFORMATION

The persons most involved in clothing fires are elderly people and children. Most fires that children become involved in are fires that originate with the use of matches. Clothing fires spread within seconds and one's reaction is to run for help. However, when a child runs, he adds more oxygen (fuel). Consequently, a person receives more serious burns. If a person's clothing should catch fire, he should immediately drop to the ground and roll in order to extinguish the flames. After the flames have been extinguished, the burned areas should be placed into ice water.

STUDY OF FIBERS

A study of fibers may be made. From this the children may gain an insight as to why certain fabrics are chosen for the interior of a public building or insight as to what to expect from certain fabrics for wearing apparel if they catch fire. Different fibers burn in different ways. Synthetics are more resistant than natural fibers. Materials that have been loosely woven burn slower than those that have been tightly woven. Sheer materials burn much faster than heavy weight materials. Fabrics that are of a close woven pile are less likely to burn than fabrics that are of a long and loosely woven pile. Articles of clothing that are worn close to the body tend to catch on fire less easily than articles that fit loosely. Loose fitting garments tend to encounter more surface areas.

FABRIC EXPERIMENT

In certain counties, experiments with fire are permitted. The teacher can then conduct experiments using a lighted candle and two different types of fabric - one loosely woven , the other tightly woven.

An area of study could evolve from the burning clothing unit. Bring swatches of materials into the classroom and tell the children they're going to pretend to do an experiment that involves a hot plate (fire). Have them categorize the materials into those that they would or would not wear for the experiment. This could be developed into a bulletin board called "Materials-Something to Think About." The children can research items that can be sprayed onto materials for fire protection.

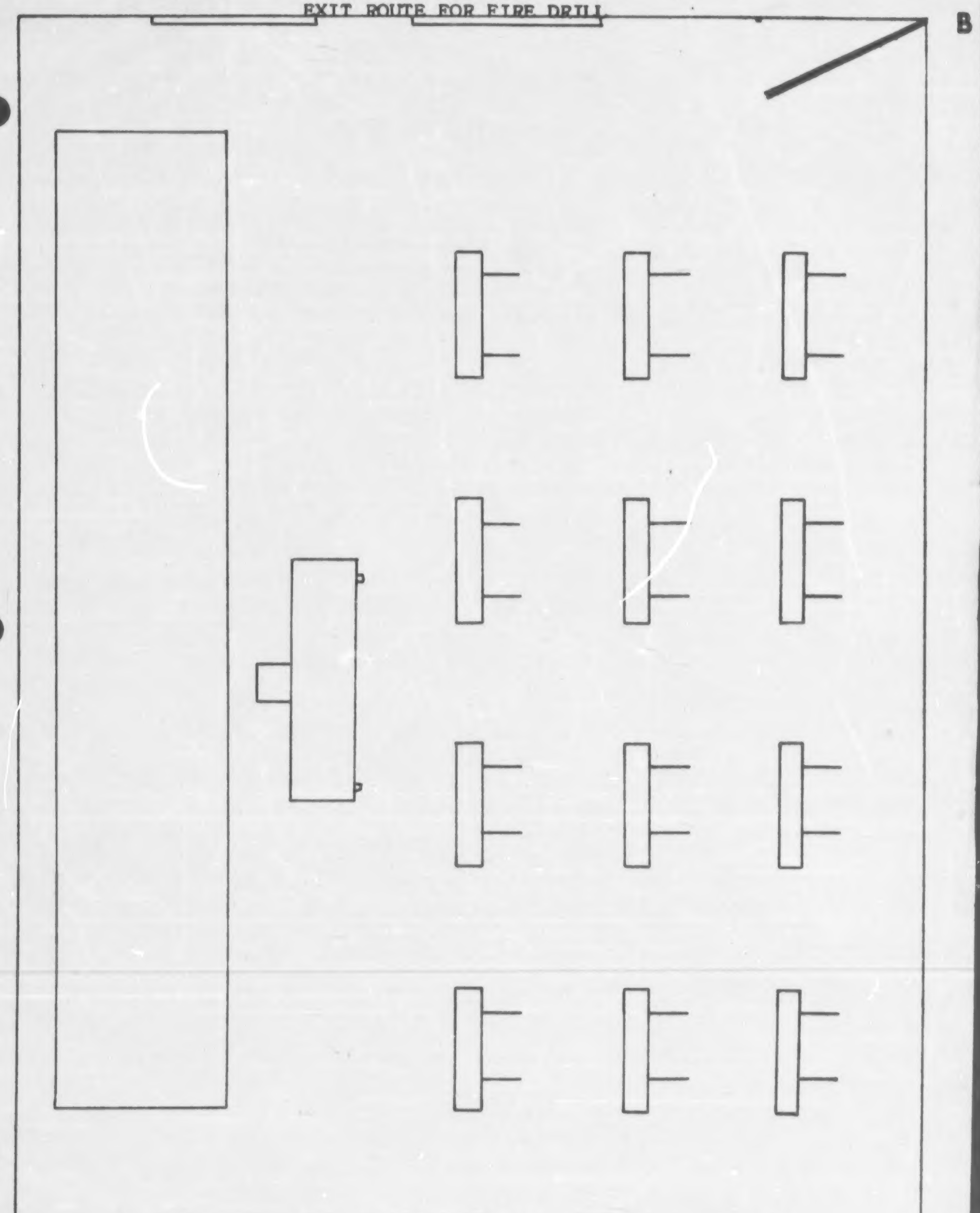
A social living unit on textiles could coincide with this unit.

MASTERS FOR REPRODUCTION

B - Exit Route for Fire Drill

C - Fire Drill Exit Procedure

EXIT ROUTE FOR FIRE DRILL



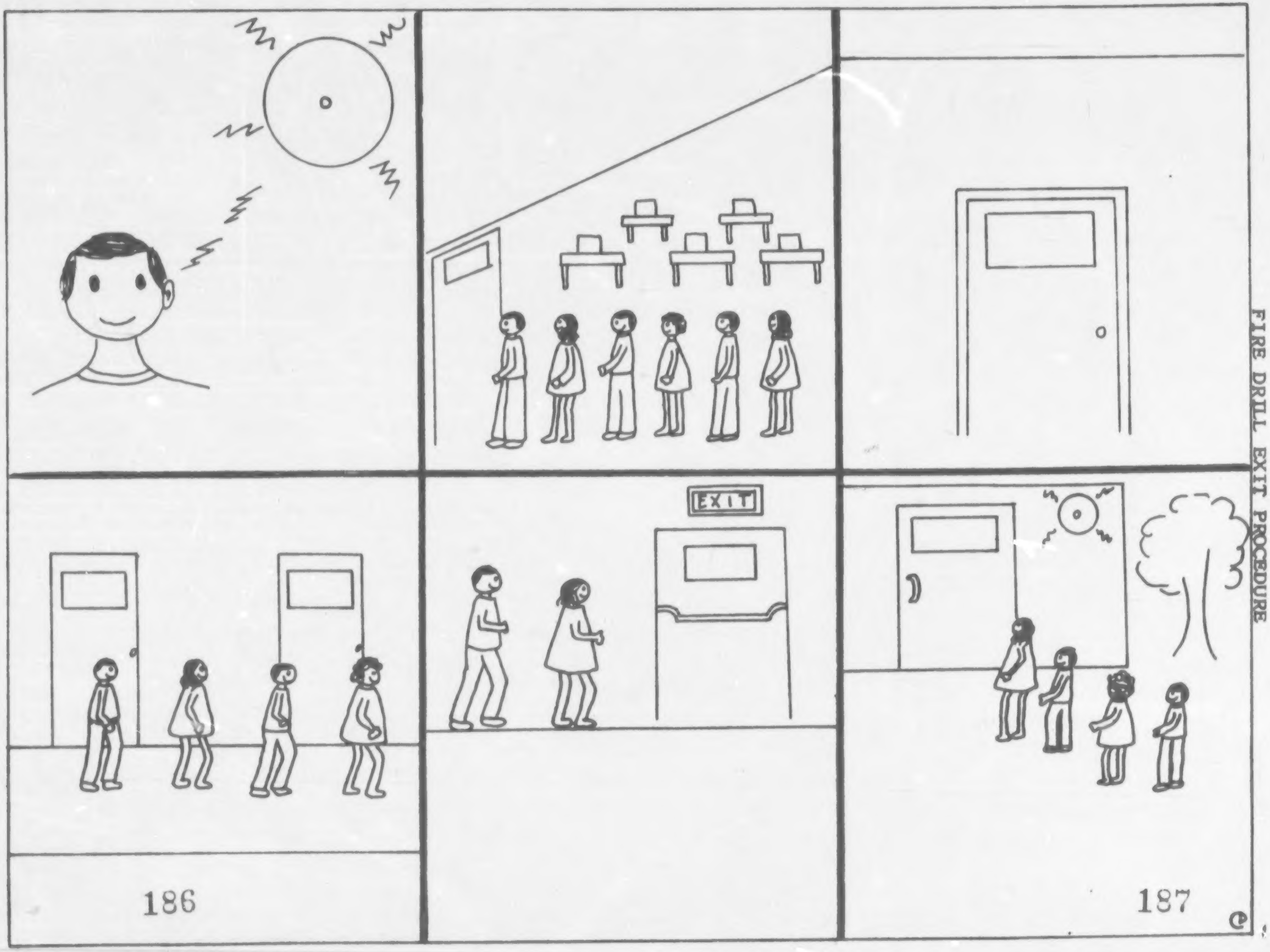
MASTER FOR REPRODUCTION B

EXIT ROUTE FOR FIRE DRILL

DIRECTIONS

Distribute the ditto and discuss proper exit from classroom. After discussion ask the children to draw in the route from their seat to exit door.

FIRE DRILL EXIT PROCEDURE


EXIT
186
187
e

MASTER FOR REPRODUCTION C

FIRE DRILL EXIT PROCEDURE

DIRECTIONS

Distribute the ditto, and discuss each step in sequence with the children. For further emphasis, ask children to cut out pictures in random order and place in proper sequence.

OBJECTIVE: After experiencing a series of activities on school safety, the student will be able to identify at least four areas of precaution on the school grounds or building.

CONCEPTS TO BE DEVELOPED: Basic rules of conduct and procedure apply in the school building and on the school grounds, just as they do in the traffic environment.

1. EMOTIONS - In a study of people or a study of words that describe people and/or a personality, add the word "emotions". Have the children discuss what the word means. The children may want to discuss and/or dramatize situations involving various types of positive and negative attitudes. Have the children list the different qualities of people's personalities and indicate whether it is a positive or negative attitude.

   For example: Happy, Glad, Smiling - positive

   Crying, Screaming, Sad - negative

   Ask the children to tell how negative and positive attitudes can affect their actions. For example, anger may cause someone not to see another person and walk into him. Continue to have the children discuss how these emotions affect our everyday lives. Drawings and/or essays could be written entitled, "Emotions! How They Affect our Everyday Lives" or "Accidents Happen at School Because...."

2. STUDY OF COMMUNITY AGENCIES - Have the children survey the community for agencies that offer help during disasters. Find out what types of services they offer. After the survey has been made, put the information on a bulletin board for display.

COMMUNITY AWARENESS

Red Cross	Civil Defense

3. CREATIVE WRITING

Ask the children to write a composition on, "IF I WERE THE DIRECTOR OF CIVIL DEFENSE." This might be done in diary form over a period of time.

4. RESEARCH

Have the children find out about new methods used in studying the weather; research hurricane and earthquake detection.

5. SCIENCE SAFETY -"WHY A HAZARD?"

In a class discussion cover various aspects of school safety. Before science experiments proceed, explain to class the rationale for safe procedures. Children should know "why" they have to be especially careful before they attempt an experiment. Discuss why this is important. The rationale may vary from experiment to experiment. Be sure to include the hazards of working with glass (break), water (slippage), fire (burning), etc.

6. SAFETY CONSULTANT

Many school districts have a safety consultant. Invite the consultant into the school to discuss his role. Have him discuss what effects his role has on the children in that particular classroom and their building. He may include the safety aspects in the school kitchen, boiler room, etc. Have the children discuss at a later time what they would do if they were the Safety Consultant. They could make up charts to show things the way they were and another chart to show changes they have made. Have the class evaluate the change for effectiveness.

7. SAFETY DIORAMA

Select one of the safety education areas below and construct a diroama. The size and the types of material used are to be chosen by the pupil. Each diorama must have a written explanation of its contents and be well marked with the name and grade of pupil. Originality, neatness and workmanship are very important to the success of the project.

AUTO PASSENGER

BICYCLE

PEDESTRIANS

SCHOOL BUS

SCHOOL ENVIRONMENT

OBJECTIVE: The student will be able to conduct himself in accordance with instruction during a simulated disaster drill.

INTRODUCTION OF DISASTER DRILL PROCEDURE

Familiarize the children with the disaster drill procedure during the first few days of school so that they'll be prepared for the initial drill. (Procedures vary from county to county.)

1. Research-Past Storms-Several books are listed in the bibliography that give information on historic storms of the past. (Snowstorms, floods, hurricanes). Have the children look up information and write reports. These could be compiled and made into a booklet called, "Nature on the Rampage," or "Storms Through the Years." Questions for research may include:

    a) What is floodproofing?

    b) In what two areas is the annual rainfall the greatest?

    c) How long do flash floods usually last?

    d) What are hurricane floods?

    e) What is an ice storm?

    f) What is a blizzard?

2. WATCH THE NEWSPAPERS

Have the children watch the newspapers and magazines for pictures and stories about different types of weather - particularly for severe and unusual weather. Then discuss the particular hazards involved with each type.

3. CLIP COMIC STRIP CAPERS

Practically all boys and girls regularly read the funnies, so part of this project is accomplished before it's even assigned.

For a specified period of time (two or three weeks) have pupils clip from the newspaper comic page any unsafe acts they see comic strip characters committing.

These clippings are to be pasted on sheets of paper and compiled in a scrapbook, with each one accompanied by a few lines telling how the unsafe act could have been avoided.

4. NEW WORDS-NEW STORY

Here's a project that will stretch your students' imagination and creativeness.

Have each member of the class bring in an episode from his favorite comic strip. Cut blank paper to fit and paste over each dialogue balloon.

Then, by substituting new dialogue, have the children create some sort of safety story.

This may result in some rather "far out" or "reaching for it" situations, but it will enable your students to give some thought to safety and exercise their creative powers at the same time.

TEACHER INFORMATION

HURRICANE

APPROACHING STORM

Get and use only official information. Keep radio or TV on and listen for latest official storm information. If power fails, use battery radio and continue to listen throughout the storm. Decide what you are going to do and where you are going to stay. If near a coastal area, residents should get away from low-lying beaches or other locations which may be swept by high tides or storm waves. Be sure there is extra food and that it can be eaten without cooking or little preparation (non-refrigerated). There may be a shortage of water. Therefore, fill containers full with water. Make sure flashlights and other emergency lights are working and that nearby lanterns and candles can be used. Be sure that matches are nearby. If walking for protection, be aware of blowing objects. If driving for protection, have a full gas tank; for the pumps run on electricity and if there is a power failure, there wouldn't be any gas.

DURATION OF STORM

Be calm and cautious and continue to listen to reports from the weather bureau, Red Cross, and other local agencies. Stay inside. Close window on windward side and keep one open on leeward side if it is a tornado or hurricane. If the center or eye of a hurricane passes directly over you, there will be a lull in the wind lasting from a few minutes to one-half an hour or more. Stay in a safe place. During and after a storm, washed out or flooded highways, streets, may be blocked by fallen trees, poles and wires... avoid them. Stay away from disaster areas. Walk and drive cautiously. Be aware of trees or branches that may be weakened and ready to fall, for buildings that may be near collapse, and for bridges or roads that may be damaged or ready to give way under the added weight of passing cars. Debris-filled streets are dangerous, so keep your eyes on the road. Along the coast, and near streams, the soil may be washed from beneath the pavement, which may collapse under the weight of vehicles.

TORNADO

Go for shelter. If in open country, move away from it at right angles. If unable to escape, lie flat in the nearest ditch or ravine. If near a building, go inside--perferably in a steel-reinforced building. Avoid auditoriums, gymnasiums, or other large halls with large poorly supported roofs. If in a house, stand in an interior hallway or a lower floor, or climb under heavy furniture in the center of the house. Safest spot is the corner of the basement toward the direction from which the tornado is approaching. Place hands over head and squat. If there is insufficient time to go to shelter, students should go to inside wall of the room away from windows, squat on the floor next to a wall, keep head down or get under the desks or furniture either by squatting or lying prone on floor, face down.

BLIZZARD

Several layers of loose-fitting, lightweight but warm clothing are best protection against the cold. Mittens, tight at the wrists are warmer than gloves with fingers. If vehicle gets stuck, stay with it where rescuers can more easily spot you. Don't attempt to walk for help, for it is easy to lose direction and become lost. Don't stay in one position for too long. Clap your hands and move arms and legs vigorously from time to time to stimulate blood circulation and keep muscles from getting cramped. Buses have 2-way radios to use for calling help. There may be an early dismissal from school. School bus driver should care for children he is unable to deliver. In the morning, listen for school closings on the news.

FLOODS

Bus--during a flood, it may be necessary for a bus to use an alternate route. If so, parents must be notified in advance as to adjusted bus routes, where the child will be picked up and taken to.

SUBJECT AREA CROSS REFERENCE

KEY: G - Group
I - Indivudual
T - Teacher Directed Activity
* - Master for Reproduction

	TYPE OF ACTIVITY	PAGE NUMBER
ART		
Pedestrian Perceptual Safety		
1. Cartooning	I-G-T	35
School Bus Safety		
1. School Bus Cutout	G-T	98
School Environmental Safety		
1. Storyboard Fire Mural	G-T	156
2. Why a Hazard?	I-G-T	167
AUDITORY ACTIVITIES		
Pedestrian Perceptual Activities		
1. Animal Auditory Research	I-G-T	6
2.* Animal Auditory Research Project-A	I-G-T	6-8
3. Car Sounds	I-G-T	9-10
4. Detecting Quiet Sounds	I-G-T	6
5. How Can We Measure Sound?	I-G-T	6
6. Recording Sounds	I-G-T	9

7. Sound Chart	I-G-T	5
8. Vibration Research	I-G-T	5
9. What Was the Sound?	I-G-T	10

LANGUAGE ARTS

Pedestrian Perceptual Safety

1. Interviews - Tape Recording	I-G-T	35

School Bus Safety

1. Community Investigators	G-T	84
2. Consultants for the Community	G-T	83
3. Man in the Street Interviews	T-I	84

Auto Passenger Safety

1.* Safety Belt Survey - E	I-G-T	129-131
2.* Tabulation of the Survey - F	I-G-T	129, 132

MASTERS FOR REPRODUCTION

KEY: MATH - Mathematics
MUSIC - Music
ART - Art
RDG - Reading
NISA - Non-Integrated Safety Activity
SCI - Science
SS - Social Studies

Pedestrian Perceptual Activities

1. Animal Auditory Research - A	Sci	I-G-T	6-8
2. Bar Graph Activity - K	Math	I-G-T	48,54
3. Diffuse Reflectors - R	Sci	I-G-T	70,73

4.	Draw a Line Through the Word that Does Not Belong - G	Rdg	I-G-T	35,38
5.	Examples of Signs - E	Nisa	I-G-T	23,33
6.	Integers-Multiplication and Division - M	Math	I-G-T	49,57
7.	Mirrors - Q	Sci	I-G-T	70-72
8.	Moving Eyes - Playlet - B	Rdg	G-T	23,25
9.	Quick Quiz - U	Sci	I-G-T	70,79
10.	Reading & Interpreting Bar Graphs - J	Math	I-G-T	48,52
11.	Relationship of Speed, Time and Distance - P	Math	I-G-T	49,65
12.	Retro - Reflectors - S	Sci	I-G-T	70,75
13.	Selecting Differences - D	Math	I-G-T	23,30
14.	Shape Recognition - C	Math	I-G-T	23,28
15.	Space, Time, Distance Activity - N	Math	I-G-T	49,59
16.	Space, Time, and Distance Judgment - O	Math	I-G-T	49,63
17.	Speed - Distance - Time		G-T	44-47
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21.	What's in a Word - I	Rdg	I-G-T	35,42
22.	Your Opinion Does Count - H	Rdg	I-G-T	35,40

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3.	Signal Research Sheet - A	Nisa	I-G-T	104-106
4.	The Well-Equipped Bicycle - G	Nisa	G-T	104,117
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7.	You Be the Judge-Weaving In and Out of Traffic - C	Nisa	I-G-T	104,109

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3.	Seat Belt Survey - E	Nisa	I-G-T	129-131
4.	Speed Limits & Average Miles per hour - N	Math	I-T	148,151
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Auto Passenger Safety

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4.	Who Breaks the Law?	I-G-T	88

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Hogg, B. J. Skill Bees. Box 295,Route 1, Vicksburg, Missouri 49097: Child Tested Skill Builders, 1971. (The set includes filmstrips, slides and activities concerned with:
Basic Writing Strokes - Kit No. SKB-101
Figure Ground Discrimination
Multi-Match Cards - Kit No. SKB-600
Shapes - Kit No. SKB-200
Visual Motor Sequencing - SKB-100

Instructive Devices, Inc. How Do You Go To School? (Bus Safety. Pawtucket, Rhode Island, 02860: Instructive Devices, Inc.
Packet includes: 1 - 35mm filmstrip
1 - sing-a-long cassette
30 - cartoon booklets
1 - LP record
1 - talk-a-long cassette
12 - safety posters
Teaching Guide
This program covers 22 important rules for school bus safety in song, verse and narration.

Milton Bradley Company. Miniature Traffic Signs. Des Plains, Illinois 60018: Milton Bradley Company.

Milton Bradley Company. Useful Signs to See and Read. Des Plains, Illinois 60018: Milton Bradley Company. (Teaching aid for functional reading programs. Thirty large cards contain traffic, driver education and safety signs which children are likely to encounter in every day living. Suggestions for use are included.)

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National Child Safety Council. *Safety Study Cards - Set No. 1 Child Accident Prevention Every Month (General Safety.)* Jackson, Michigan: National Child Safety Council, 1966. (Set contains posters and manuals concerned with general safety, study guides and suggested activities on the back of the individual posters.)

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Office of the Superintendent of Public Instruction. *Safety Education Units for Illinois Elementary Schools*. Springfield, Illinois: Safety Education Section, 1972.

Scott Foresman and Company. Sounds I Can Hear. Oakland, New Jersey: Scott Foresman and Company. (Set contains posters, individual pictures and 33-1/3 recordings concerned with sounds in the house, school, neighborhood, farm and zoo.)

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Stuart, Francis R. Physical Fitness in Action. Dansville, New York: F. A. Owen Publishing Co., 1962.

Stuart, Francis R. Physical Fitness in Motion. Dansville, New York: F. A. Owen Publishing Company, 1962. (10 posters, 1 record chart and 40 classroom activities to develop sound bodies.)

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Walt Disney Study Prints. Fire Prevention. 545 Cedar Lane, Teaneck, New Jersey 60068: Walt Disney Films. (A series of 9 study prints based on the Walt Disney 16mm film titled, "I'm No Fool with Fire." Each print contains teaching aids and suggested activities printed on the back.

Walt Disney Study Prints. Pedestrian Safety Set No. 101. 545 Cedar Lane, Teaneck, New Jersey 60068: Walt Disney Films. (A series of 9 study prints based on the Walt Disney 16mm film titled, "I'm No Fool as a Pedestrian." Each print contains teaching aids and suggested activities printed on the back.)

Walt Disney Study Prints. School Bus Safety Set No. 104. 545 Cedar Lane, Teaneck, New Jersey 60068: Walt Disney Films. (A series of 9 study prints. Each print contains teaching aids and suggested activities printed on the back.)

Walt Disney Study Prints. School Safety Set No. 103. 545 Cedar Lane, Teaneck, New Jersey 60068: Walt Disney Films. (A series of 9 study prints. Each print contains teaching aids and suggested activities printed on the back.)

Films and Filmstrips

FILMS

Auto Passenger

Broken Glass. (16mm, color, 14 min.) Demonstrates value of seat belts. Available for loan from American Family Insurance, 3099 E. Washington St., Madison, Wisconsin.

How and Why to Use Safety Belts. (16mm, color, 8 min.) A definitive in-depth approach, dramatizing the need for safety belts, and explaining why safety belts save lives. Footage covers standard seat belts, lap-shoulder belts, full-harness belts, and includes the best current protection for the traveling child. Buckle assemblies and buckle adjustments for foreign as well as domestic model cars are explained in detail, with instructions for use and maintenance of these as well. Available from American Safety Belt Council, Inc., Public Education Office, P. O. Box 539, Los Angeles, Calif. 90028.

Love That Car. (16mm, color, 10 min.) Emphasizes the point that when a car is improperly maintained, many accidents can result. It should be mentioned, however, that dangerous practices are treated as humorous eccentricities throughout this film. At the end of the film safety belts are mentioned by the announcer who cheerfully reminds us to, "Keep your seat belt fastened."

Safety Belt for Susie. (16mm, color, 11 min.) Child's doll dramatizes need for seat belts in rear seat for children. Purchase or rent from University of Illinois, Visual Aids Center, Division of University Extension, Champaign, Ill., 1964.

She Purrs Like a Kitten. (16mm, color, 5 min.) A pair of elderly ladies in a chauffeur-driven car are busily chatting. The narrator says sarcastically that they have too many fascinating things to talk about to fasten their safety belts. The car stops suddenly and they both are shown getting up and back into their seats in a "comic" manner. In a second shot of the ladies later in the film, the narrator says that safety belts are important to car maintenance because you can avoid "body repairs." Again at the end of the film, he reminds viewers to keep their safety belts fastened. Available from Data Films, 2625 Temple St., Hollywood, California.

U. F. O. - Unrestrained Flying Objects. (16mm, 14 min.) Proves the reason for different types of seat belts. Available for loan from General Motors Corporation, Public Relations Staff - Film Library, General Motors Building, Detroit, Michigan 48102.

Bicycle

A Monkey Tale. (16mm, sound, B&W, 9 min.) A family of monkeys demonstrates both safe and unsafe ways to drive a bicycle. Available for purchase from Encyclopedia Britannica Films, 425 N. Michigan Avenue, Chicago, Illinois 60611.

Bicycle Rules of the Road. (16mm) Bicycle film for upper elementary grades, 1971.

Bicycle Safety. (16mm, sound, B&W, 11 min.) Driver responsibilities explored include bicycle maintenance and obeying traffic rules. Available for purchase from McGraw-Hill Company, Text-Film Division, 330 West 42nd Street, New York, New York 10036.

Bicycle Safety Program. (16mm) Film Loops, Inc., P. O. Box 2233, Princeton, New Jersey, 1971.

Bicycle Safety Skills. (16mm, sound, color or B&W, 11 min.) The theme, "good cyclists today, good motorists tomorrow," is emphasized. A youngster shows his small brother safety practices that make cycling safe as well as enjoyable. Available for purchase or rental from Coronet Instructional Films, 65 East Water Street, Chicago, Illinois 60601.

Bicycling Safely Today. (16mm, 20 min.) Pleasantly illustrates how cyclists can achieve full enjoyment from their wheels. It is the perfect film for solving safety problems in the community. Available on loan from the Bicycle Institute of America, 122 E. 42nd St., New York, New York 10017, 1972.

I'm No Fool with a Bicycle. (16mm) The bicycle, as Jiminy Cricket points out, is a wonderful invention - even more wonderful if we know the right way to do things with it. After tracing the history of the bicycle from its first invention in France around 1810 up to the modern safety bike as we know it today, Jiminy graphically describes the wrong and the right things to do with a bike. He's strongly recommending the latter, that is - "If you want to live to be 93." Available for rental or lease from Walt Disney Educational Materials Co., 495 Route 17, Paramus, New Jersey 07652, 1971.

Once Upon a Bicycle. (16mm, B&W, sound, 10 min.) In this film the young cyclist is likened to the driver of other vehicles. Under the guidance of a motorcycle officer, youngsters are shown how to drive their bicycles safely. Available from National Child Safety Council, 125 W. Pearl St., Jackson, Michigan. Free loan to members of the National Child Safety Council.

One Got Fat. (16mm, color, 13¼ min.) Ten bicycle drivers are prevented from reaching their destinations by individual mistakes. Purchase or rent from Henk Newhouse, Inc., 1017 Longaker Road, Northbrook, Illinois 60062, 1963.

Safety on Two Wheels. (16mm, sound) Produced and available from Aetna Life Insurance Company, Hartford, Connecticut.

Seven Rules of Bicycle Safety. (16mm, color, 6½ min.) 7 rules accepted by safety experts are demonstrated in this film for children. The positive approach is taken by showing only the right way to drive a bike. Purchase from Anthony Lane Film Studios, Inc., 7401 Wayzata Boulevard, Minneapolis, Minn. 55426, 1965.

Stop and Go On a Bike. (16mm, sound, color, 13 min.) A boy named Chuck discovers that courteous behavior on a bike is not only safer, but more fun. He learns his lesson with the help of two safety puppets and a policeman. Available on free loan from Association Films, Broad and Elm Streets, Ridgefield, New Jersey 07657.

The Bicyclists. (16mm, sound, color, 15 min.) A Danish film with English narration. The story of a lively red bicycle and its two owners; one who obeys all the rules and one who does not. Available for rental from Western Cinema Guild, 244 Kearny St., San Francisco, California 94108.

The Day the Bicycles Disappeared. (16mm, color, 14 min.) Safe and courteous bicycle driving habits are presented in fantasy form. Purchase from AAA Foundation for Traffic Safety, 1712 G St., N. W., Washington, D. C. 20006, 1966.

You and Your Bicycle. (16mm, B&W, 10½ min.) Hazards met on a trip to the store for mom, safety maintenance and correct driving habits are featured. Purchase or rent from Progressive Pictures, 1810 Francisca Court, Benifica, California 94510, 1961.

Your Bicycle and You. (16mm, sound, color, 13 min.) Compares bicycles and automobiles, discusses bicycle operation and care as well as rules of the road. Available for purchase from Modern Learning Aids, Division of Modern Talking Pictures, 3 E. 54th St., New York, New York 10022.

FILMSTRIP

I'm No Fool with a Bicycle. Riding a bicycle in 1810 in France was probably just as much fun as it is today in America... but even our modern safety bike can be dangerous. Jiminy Cricket traces the history of this popular invention and demonstrates the rules for safe riding. He urges children to keep their bikes in good working order and to follow automobile safe driving regulations. Available from Walt Disney Educational Materials Co., 495 Route 17, Paramus, New Jersey. 33-1/3 rpm record and filmstrip available from Maryland State Department of Education, Safety and Transportation, P. O. Box 8717, Friendship International Airport, Baltimore, Maryland 21240.

FILMS

School Bus

Bus Driver's Helpers. (16mm, color or B&W, 10 min.) Explains proper school bus conduct to elementary pupils. Available for purchase from AIMS Instructional Media Services, Inc., P. O. Box 1010, Hollywood, California 90028.

In Step with Safety. (16mm, color, 14 min.) Gives children the rules for school bus safety and the reasons for observing them. May be purchased from Robert M. Carson Productions, P. O. Box 1306, Winter Park, Florida 32790, 1960.

Safety on Our School Bus. (16mm, color or B&W, 11 min.) Film explains proper procedure for getting on and off a bus and six common sense rules for safe conduct while riding. Available for purchase from Encyclopedia Brittanica Educational Corp., 425 N. Michigan Ave., Chicago, Illinois 60611.

School Bus Patrol. (16mm, color or B&W, 14½ min.) Shows how a school bus patrol operates. Available for purchase or loan from AAA Foundation for Traffic Safety, 1712 G St., N. W., Washington, D. C. 20006.

School Bus Safety with Strings Attached. (16mm, B&W, 28 min.) Using folding chairs and student volunteers, the narrator creates a hilarious school bus ride to demonstrate the rules of passenger safety and etiquette. Stock No. 278.13. May be purchased from the National Safety Council, 425 N. Michigan Ave., Chicago, Illinois 60611, 1964.

The School Bus and You. (16mm, color, 10 min.) Designed to teach school bus safety and courtesy to elementary school children. Purchase or rent from Mogull's, 112-14 W. 48th St., New York, New York 10039, 1966.

FILMSTRIPS

Here's How We Ride a School Bus. (60 frames) Sponsored by the Ontario Department of Transportation. This filmstrip has been designed to encourage pupil participation and discussion. For this reason, there is no sound track. This provides full flexibility to meet every teaching situation.

School Bus Safety. (35mm strip, silent, B&W) Safety rules for school bus passengers. Available for purchase from Visual Sciences, P. O. Box 599, Suffern, New York 10901.

FILMS

Pedestrian

A First Film on Finding Your Way to School. (16mm, color, 9½ min.) Recognizing landmarks and understanding safety rules. Rental $6.50, sale $120.00, B. F. A. Educational Media, 2211 Michigan Avenue, Santa Monica, Calif. 90404.

Dick Wakes Up. (16mm, B&W or color, 13 min.) Dick, who had an accident because he ran into the street without looking, dreams in the hospital that he has two other selves named Good Judgment and Bad Impulse. He learns about good safety practices from their arguments. Available for purchase or loan from AAA Foundation for Traffic Safety, 1712 G St., N. W., Washington, D. C. 20006, 1955.

I'm No Fool as a Pedestrian. (16 mm) Ever since the Egyptians built the first paved roads in 3000 B. C., the pedestrian has been fighting for his life. The sidewalk, first invented in Paris in 1780, gave some relief but soon the automobile came and the pedestrian's life was again hazardous. To survive, the pedestrian has had to learn how to walk properly--where to walk--and when to walk. Only by following the rules can the pedestrian successfully reach his goal from one place to another. Available from Walt Disney Educational Materials, 495 Route 17, Paramus, New Jersey 07652, 1971.

Let's Stop and Go Safely. (16mm, 18 min.) Illustrates several street safety situations such as roller skating, running between parked cars, crossing intersections and how observing rules prevents accidents. Rental $4.50. Roa's Films, 1696 N. Astor Street, Milwaukee, Wisconsin 53202.

Look Alert - Stay Unhurt. (16mm, B&W, 14 min.) Emphasizes the causes of many pedestrian accidents and how they can be avoided. National Film Board of Canada.

On Your Own. (16mm, B&W or color) A captivating comparison of pedestrian safety rules and training with the training of an astronaut. Available for purchase from Sid Davis Productions, 2429 Ocean Park Boulevard, Santa Monica, California 90405, 1962.

Pedestrians. (16mm, B&W, 10 min.) Shows the problems for walkers and drivers when the two come into conflict. Available for loan from Ford Motor Company, Motion Picture Department, 3000 Schaefer Road, Dearborn, Michigan.

Step Lightly. (16mm, color, 14 min.) Narrated by John Daly. Proves that clothing with reflectorized trim protects pedestrians against night time traffic accidents. Available for loan from Advertising Department Traffic Control Products Division, 3M Center, 224-6W, St. Paul, Minn. 55101.

Timothy the Turtle. (16mm, 5 min.) Emphasis on watching for turning cars, American Automobile Association, Washington, D. C. ($13.00) (Part of the "Otto the Auto" Series), 1959.

When You are a Pedestrian. (16mm, 10 min.) Shows common practices among both pedestrians and drivers which lead to accidents. Animated models illustrate safety rules. Rental $3.50, intermediate. Roa's Films, 1696 N. Astor Street, Milwaukee, Wisconsin 53202.

FILMSTRIPS

I'm No Fool as a Pedestrian. Egyptians built the first paved roads in 3000 B. C. and pedestrians had to start dodging reckless chariot drivers...the first in a long history of walking safety problems. The sidewalk, invented in 1870 in Paris, gave some respite, but soon the automobile created more hazards. Jiminy Cricket tells how, when and where to walk in order to avoid accidents. Available from Walt Disney Educational Materials Company, 495 Route 17, Paramus, New Jersey 07652. 33-1/3 rpm record available from Maryland State Department of Education, Safety and Transportation, P. O. Box 8717, Friendship International Airport, Baltimore, Md. 21240.

Street Safety. Primary to intermediate. Color. Cost $6.50.
McGraw-Hill Text-Films, 330 West 42nd Street, New York, New York 10036.

Walking to School. Primary, color. Curtis Publishing Company, Audiovisual Materials Division, Independence Square, Philadelphia, Pennsylvania 19105.

FILMS

School Safety

Donald's Fire Survival Plan. (16mm) Proves that something can be done to prevent needless and tragic loss of life because of fire. Donald and his nephews present a convincing solution to the problem. Each family must be prepared to follow a prearranged fire escape plan when fire strikes a home. The need for a plan--how to make a plan--and how to carry out a plan--is the vital message and the theme of this film. Available for lease or rental from Walt Disney Educational Materials Company, 495 Route 17, Paramus, New Jersey.

Handling Garden Tools Safely. (8mm, color, sound, 3 min., 15 sec.) Proper use of rakes, forks, shovels and other garden equipment as well as the importance of proper storage is illustrated through a real-life situation. Available from the Encyclopedia Brittanica Educational Corporation, 425 N. Michigan Avenue, Chicago, Illinois 60611, 1968.

Handling Knives and Scissors Safely. (8mm, color, sound, 2min.35 sec.) A youngster building a model airplane is the subject of this film that illustrates with animated diagrams the proper use of knives and scissors to avoid painful accidents. Available for purchase from Encyclopedia Britannica Corporation, 425 N. Michigan Ave., Chicago, Illinois 60611, 1968.

I'm No Fool with Fire. (16mm, color) A cave man first discovered he could produce fire by striking two rocks together and history reveals that since that time fire has been one of man's best friends as well as one of his deadliest enemies. From bitter experience, man has learned he must understand fire--how to start it--how to control it-- and how to put it out. Jiminy Cricket presents the basic rules of fire prevention and fire fighting summing up his philosophy when he states, "The best way to fight fire is not to have one in the first place." Available from Walt Disney Educational Materials 495 Route 17, Paramus, New Jersey 07652.

Junior Fire Department. (16mm, B&W, 20 min.) Shows how fire prevention education may be taught in public schools and how these lessons can influence fire safety at home. Purchase from Anisound Company, 1037 LaBrea Avenue, Hollywood, California.

Sixty Seconds to Safety. (16mm, B&W, 12 min) Points out common fire hazards in schools. Available for purchase, rent or loan from American Film Registry, 1018 S. Wabash, Chicago, Illinois 60605.

The Fire Triangle. (16mm, color or B&W, 13 min.) Demonstrates how firemen control fires by eliminating one of the three components of fire. Purchase or rent from University of Texas, Visual Instructional Bureau, Austin, Texas, 1962.

Trouble Takes No Holiday. (16mm, color, 17 min.) How a false alarm sparks a school campaign to re-educate pupils to be fire-safety conscious. Purchase or loan from Association Films, Inc., 600 Madison Ave., New York, N.Y. 10022, 1964.

FILMSTRIP

I'm No Fool with Fire. Long ago a caveman struck two rocks together and sparks flew...and ever since that time, mankind has been trying to control fire. Here Jiminy explains the dangers of fire, describes some of the advances our skill in using fire has made possible, outlines fire-fighting procedures, and presents basic fire prevention rules for young children to follow. Available from Walt Disney Educational Materials Company, 495 Route 17, Paramus, New Jersey 07652.

Games

Creative Playthings. Perception Plaques (a matching game). P. O. Box 1100, Princeton, New Jersey 08540: Creative Playthings.

Norbert Specialty Corp. Traffic Sign Bingo. New York, New York 10032: Norbert Specialty Corp.

Otto Maier Verlag. Positive and Negative (a perceptual matching game). New York, New York: manufactured by Otto Maier Verlag, Rauensburg, West Germany for Creative Playthings, a Division of CBS, Inc.

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Student Activity Books

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Glogau, Lillian, Krause, Edmund. Let's See. St. Louis, Missouri: American Optometric Association, 1970.

Hoffman, James. Come Play with Me. Birmingham, Michigan: The Instructional Fair, Inc., 1970.

Teacher Preparation

American Mutual Insurance Alliance. Here's How - Traffic Safety Project Ideas. Stromberg Allen and Co., 1963.

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Ashley, Rosiland Minor. Successful Techniques for Teaching Elementary Language Arts. West Nyack, New York: Parker Publishing Company, Inc., 1970.

Baltimore City Public Schools. Physical Education at the Early Elementary Level. Baltimore City Bureau of Publications, 1968.

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